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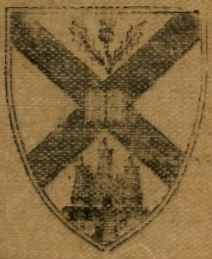

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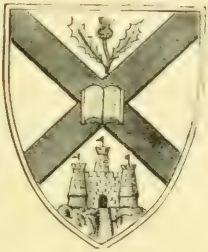

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XIII. Ordinance of the Universities Commissioners of 1889:—

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The Calendar.

1894—OCTOBER, 31 DAYS.

1	M	ANNUS ACADEMICUS *begins. First day for payment of* MATRICULATION *fee. Practical Anatomy, and Public Health Laboratory Courses begin. Annual Inspection of Library. All Books to be returned before this date. Library closed for lending till 8th.* PREL. *and* BURSARY EXAMS. *begin on September 28th.* See Time-Tables, pages 132-134, 397, 512, and 583.
2	Tu	*Last day for Names of Candidates for Degrees in Arts and Science, for B.L. Preliminary, on M.A. Standard, and for L.A. Certificates, to be given in, Certificates shown, and Fees paid.*
3	W	
4	Th	
5	Fr	
6	Sa	
7	S	
8	M	
9	Tu	CLASSES IN FACULTIES OF MEDICINE AND SCIENCE OPEN. *Examinations for M.A., L.A., and B.L. Preliminary begin.* See Time-Tables, pages 137-139, 507, and 512.
10	W	
11	Th	*Examinations for Degrees in Science begin.* See Time-Table, pages 397-398.
12	Fr	
13	Sa	
14	S	

15	M	*Meeting of University Court at* 4 P.M. *Last day for entering Names for Second and Third Year Grierson Bursaries in Law.*
16	Tu	CLASSES IN FACULTIES OF ARTS AND LAW, AND SOME OF THE SCIENCE CLASSES OPEN.
17	W	
18	Th	*Last day for Names of Candidates for B.D. to be given in, Certificates shown, and Fees paid.*
19	Fr	
20	Sa	*Meeting of Senatus Academicus at* 2 P.M.*:* (1) *Standing Committees to be appointed;* (2) *Annual Budget of Senatus to be arranged;* (3) *House Committee to submit Estimates for year.*
21	S	
22	M	*Last day for Names of Candidates for Degrees in Law to be given in, Certificates shown, and Fees paid.*
23	Tu	*Examinations for B.D. begin.* See Time-Table, page 453.
24	W	
25	Th	
26	Fr	*Meeting of General Council, at* 3 *o'clock.*
27	Sa	
28	S	
29	M	*Examinations for Degrees in Law begin.* See Time-Table, page 512.
30	Tu	DIVINITY CLASSES OPEN.
31	W	

1894—NOVEMBER, 30 DAYS.

1	Th	
2	Fr	
3	Sa	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	Fr	*Examinations for Divinity Bursaries begin.*
10	Sa	
11	S	Martinmas.
12	M	*Meeting of University Court at* 4 P.M. *Names of Class Assistants to be submitted for approval.*
13	Tu	
14	W	*Certificates for Bursaries in Arts granted by Dean. Fellowships, Scholarships, Bursaries paid by Factor.*
15	Th	
16	Fr	
17	Sa	
18	S	
19	M	
20	Tu	
21	W	
22	Th	
23	Fr	
24	Sa	*Meeting of Senatus Academicus at* 2 P.M.
25	S	
26	M	
27	Tu	
28	W	
29	Th	
30	Fr	*Registration of Members of General Council for Register of* 1895 *ends.*

1894—DECEMBER, 31 DAYS.

1	Sa	
2	S	
3	M	
4	Tu	
5	W	
6	Th	
7	Fr	
8	Sa	
9	S	
10	M	
11	Tu	
12	W	
13	Th	
14	Fr	
15	Sa	*Meeting of Senatus at* 2 P.M.: (1) *Election of Managers for Royal Infirmary*; (2) *Report to Widows' Fund.*
16	S	
17	M	*Meeting of University Court at* 4 P.M.
18	Tu	
19	W	
20	Th	
21	Fr	*Classes meet for last time before Christmas Vacation.*
22	Sa	
23	S	
24	M	*Library, Reading Room, and University Offices open from* 10 A.M. *to* 1 P.M. *till 8th January. Closed on Saturdays. Reading Room, New Buildings, closed.*
25	Tu	CHRISTMAS DAY.
26	W	
27	Th	
28	Fr	
29	Sa	
30	S	
31	M	

1895—JANUARY, 31 DAYS.

1	Tu	
2	W	
3	Th	
4	Fr	
5	Sa	
6	S	
7	M	
8	Tu	*Classes meet after Christmas Vacation.*
9	W	
10	Th	
11	Fr	
12	Sa	
13	S	
14	M	*Meeting of University Court at* 4 P.M. *Appointment of Examiners in Medicine and in Science.*
15	Tu	
16	W	
17	Th	
18	Fr	
19	Sa	
20	S	
21	M	*Meeting of University Court for hearing Registration Appeals, at* 4 P.M.
22	Tu	
23	W	
24	Th	
25	Fr	
26	Sa	*Meeting of Senatus Academicus at* 2 P.M.: (1) *Annual Report on University Library to be given in;* (2) *Names for Honorary Degrees to be proposed;* (3) *Arrangements for Winter and Summer Sessions,* 1895-96.
27	S	
28	M	
29	Tu	
30	W	
31	Th	

1895—FEBRUARY, 28 DAYS.

1	Fr	
2	Sa	
3	S	
4	M	
5	Tu	
6	W	
7	Th	
8	Fr	
9	Sa	
10	S	
11	M	*Holiday in Faculty of Arts.*
12	Tu	
13	W	
14	Th	
15	Fr	
16	Sa	
17	S	
18	M	*Meeting of University Court at* 4 P.M.
19	Tu	
20	W	
21	Th	
22	Fr	
23	Sa	*Meeting of Senatus Academicus at* 2 P.M.*:* (1) *Report on Honorary Degrees in Divinity and Law;* (2) *Resolution to Elect Member of General Assembly.*
24	S	
25	M	
26	Tu	
27	W	
28	Th	

1895—MARCH, 31 DAYS.

1	Fr	
2	Sa	
3	S	
4	M	
5	Tu	
6	W	
7	Th	
8	Fr	
9	Sa	
10	S	
11	M	
12	Tu	
13	W	
14	Th	
15	Fr	*Last day for Names of Candidates for Degrees in Arts, for Schoolmaster's Diploma, for Literate in Arts, and for B.L. Preliminary on M.A. Standard, to be given in and Fees paid. Last day for names of Candidates for Scholarships in Arts and Science to be intimated.*
16	Sa	
17	S	
18	M	*Meeting of University Court at* 4. P.M. *Last day for Names for First Professional Examination, and for Examinations for Degrees in Science to be given in, Certificates shown, and Fees paid.*
19	Tu	*Last day for Names to be given in, Certificates shown, and Fees paid for B.D. Exams.*

20	W	*Last day for Names for Preliminary Examination to be given in.* CLASSES IN FACULTY OF LAW CLOSE.
21	Th	*Examinations for M.A. and for L.A. begin.* See Time-Table, pages 137 and 138.
22	Fr	CLASSES IN FACULTIES OF DIVINITY AND MEDICINE CLOSE. *Last day for Names for Second Prof. Exam. to be given in, Certificates shown, and Fees paid.*
23	Sa	*Practical Chemistry Exam. for Degrees in Arts, Science, and Medicine begin.*
24	S	
25	M	*First Professional Examination, B.Sc. Examinations, and Science Subjects for M.A. begin.* See Time-Tables, pages 137, 398, 590, 608.
26	Tu	
27	W	*First Professional and Science Oral Exams. begin.*
28	Th	*Second Professional Examinations begin.* See Time-Table, pages 591, 609.
29	Fr	CLASSES IN THE FACULTIES OF ARTS AND SCIENCE CLOSE. *Certificates for M.A. Exams. to be shown before 4 p.m. Second Professional Oral Examinations begin. Preliminary Examinations begin. Schoolmaster's Diploma Examinations begin.* See Time-Table, pages 132-134, 138, 397, 507, 512, 583.
30	Sa	*Meeting of Senatus Academicus at* 2 P.M.: (1) *Member of Assembly to be elected;* (2) *Acceptances of Honorary Degrees;* (3) *Class Lists and Returns for University Court to be given in.*
31	S	

1895—APRIL, 30 DAYS.

1	M	*Examinations for M.A. with Honours, for Scholarships, and for D.Sc. in Mental Science and Philology begin.* See Time-Tables, pages 137 and 138.
2	Tu	
3	W	*B.D. Examinations begin.* See Time-Table, page, 453.
4	Th	
5	Fr	
6	Sa	
7	S	
8	M	
9	Tu	
10	W	
11	Th	
12	Fr	GOOD FRIDAY. HOLIDAY.
13	Sa	GRADUATION CEREMONIAL IN DIVINITY. LAW. ARTS. AND SCIENCE, AT 10 A.M. COMMEMORATION SERVICE IN ST GILES'S AT 12.
14	S	EASTER SUNDAY.

15	M	*Meeting of University Court at* 4 P.M. Edinburgh holiday.
16	Tu	*Meeting of University General Council at* 3 P.M. *University Library, and Reading Room in New Buildings, open from* 10 A.M. *to* 1 P.M. *till 22nd April. Closed on Saturdays. Senatus Office open from* 10 *to* 1 *till 1st May. Closed on Saturdays.*
17	W	*Names of Candidates for Final Exam. in Medicine to be given in, Certificates shown, and Fees paid.*
18	Th	
19	Fr	
20	Sa	
21	S	
22	M	
23	Tu	
24	W	
25	Th	
26	Fr	
27	Sa	
28	S	
29	M	
30	Tu	*Last day for giving in Theses and paying Fees for M.D., and for D.Sc.*

1895—MAY, 31 DAYS.

1	W	SUMMER SESSION OPENS.
2	Th	*Clinical Surgery Exams. begin.*
3	Fr	*Clinical Medicine Exams. begin.*
4	Sa	
5	S	
6	M	
7	Tu	
8	W	
9	Th	
10	Fr	
11	Sa	
12	S	
13	M	*Meeting of University Court at* 4 P.M. LAW CLASSES OPEN. Court of Session sits.
14	Tu	
15	W	Whitsunday.
16	Th	
17	Fr	
18	Sa	*Fellowships, Scholarships, Bursaries, paid by Factor.*
19	S	
20	M	
21	Tu	
22	W	
23	Th	HOLIDAY. General Assembly meets.
24	Fr	Queen Victoria born, 1819. HOLIDAY IN FACULTY OF MEDICINE.
25	Sa	
26	S	
27	M	
28	Tu	
29	W	
30	Th	
31	Fr	*Meeting of Senatus Academicus at* 3 P.M.

1895—JUNE, 30 DAYS.

1	Sa	
2	S	
3	M	
4	Tu	*University Local Examinations begin.*
5	W	
6	Th	
7	Fr	
8	Sa	
9	S	
10	M	
11	Tu	
12	W	
13	Th	
14	Fr	
15	Sa	
16	S	*Meeting of University Court at* 4 P.M. *Final Prof. Written Exam. in Med. begins.* See Time-Table, page 609.
17	M	
18	Tu	
19	W	*Final Prof. Oral Exams. begin.*
20	Th	*Accession of the Queen,* 1837.
21	Fr	
22	Sa	
23	S	
24	M	Midsummer Day.
25	Tu	
26	W	
27	Th	
28	Fr	*Queen's Coronation,* 1838. *Meeting of Senatus Academicus at* 3 P.M.
29	Sa	
30	S	

1895—JULY, 31 DAYS.

1	M	*Last day for Names of Candidates for Degrees in Law, and in Arts (Dept. of Hist. and Law), and for Second B.Sc. Examinations in Public Health to be given in, Certificates shown, and Fees paid.*
2	Tu	
3	W	
4	Th	
5	Fr	
6	Sa	*Last day for Names of Candidates for Second Professional Examination to be given in, Certificates shown, and Fees paid. Examinations for Degrees in Law and in Arts (Dept. of Hist. and Law), and Second B.Sc. Examinations in Public Health begin.* See Time-Tables, pages 139, 399 and 512.
7	S	
8	M	
9	Tu	
10	W	
11	Th	
12	Fr	*Last day for Names of Candidates for Examinations for Degrees in Arts and Science, and for First Professional Examination in Medicine to be given in, Certificates shown, and Fees paid.*
13	Sa	
14	S	
15	M	*Meeting of University Court at* 4 P.M. *Last day for payment of Stamp Duty for M.D. Diplomas.*
16	Tu	
17	W	*Second Professional Examinations in Medicine begin.* See Time-Table, pages 591, 609.
18	Th	*Oral Exams. begin.*
19	Fr	SUMMER SESSION ENDS.
20	Sa	*Practical Chemistry Examination for Degrees in Arts, Science and Medicine begins.*
21	S	*Examinations for Degrees in Arts (Depts. of Law and Science), Law, Science, and First Prof. in Medicine begin.* See Time-Tables, pages 139, 398, 591, 608.
22	M	
23	Tu	
24	W	*Oral Examinations for Degrees in Arts, Science, and Medicine begin.*
25	Th	*Meeting of Senatus Academicus at* 3 P.M. (1) *Candidates for Degrees to be reported and approved;* (2) *Class Lists and Returns for Court, &c., to be given in.*
26	Fr	
27	Sa	
28	S	
29	M	
30	Tu	
31	W	

1895—AUGUST, 31 DAYS.

1	Th	GRADUATION CEREMONIAL IN LAW, MEDICINE, AND SCIENCE AT 10 A.M. *Library open from* 10 A.M *to* 1 P.M. *till Friday, 1st September. Closed on Saturdays. Reading Room, New Buildings, closed during same period. University Offices open from* 10 *to* 1 *till 1st Oct. Closed on Saturdays.*
2	Fr	
3	Sa	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	Fr	
10	Sa	
11	S	
12	M	
13	Tu	
14	W	
15	Th	
16	Fr	
17	Sa	
18	S	
19	M	
20	Tu	
21	W	
22	Th	
23	Fr	
24	Sa	
25	S	
26	M	
27	Tu	
28	W	
29	Th	
30	Fr	
31	Sa	

1895—SEPTEMBER, 30 DAYS.

1	S	
2	M	*Reading Room in University New Buildings open from* 10 *to* 1 *till* 1*st October. Closed on Saturdays.*
3	Tu	
4	W	
5	Th	
6	Fr	
7	Sa	
8	S	
9	M	
10	Tu	
11	W	
12	Th	
13	Fr	
14	Sa	
15	S	
16	M	Edinburgh Holiday.
17	Tu	
18	W	
19	Th	
20	Fr	*Last day for Names of Candidates for Preliminary Examinations to be given in, and Fees paid. Last day for entering for University Bursaries in the Faculties of Arts and Science.*
21	Sa	
22	S	
23	M	
24	Tu	
25	W	
26	Th	
27	Fr	
28	Sa	*Preliminary Examinations for Degrees in Arts and Science, and Bursary Examinations may begin.* Time-Tables will be given in CALENDAR for 1895-6, and in the Regulations issued separately.
29	S	
30	M	

Calendar for the Academic Year 1895-96.

OCTOBER 1895.						
S		6	13	20	27	
M		7	14	21	28	
Tu	1	8	15	22	29	
W	2	9	16	23	30	
Th	3	10	17	24	31	
Fr	4	11	18	25		
Sa	5	12	19	26		

NOVEMBER 1895.						
S		3	10	17	24	
M		4	11[1]	18	25	
Tu		5	12	19	26	
W		6	13	20	27	
Th		7	14	21	28	
Fr	1	8	15	22	29	
Sa	2	9	16	23	30	

DECEMBER 1895.						
S	1	8	15	22	29	
M	2	9	16	23	30	
Tu	3	10	17	24	31	
W	4	11	18	25[2]		
Th	5	12	19	26		
Fr	6	13	20	27		
Sa	7	14	21	28		

JANUARY 1896.						
S		5	12	19	26	
M		6	13	20	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3	10	17	24	31	
Sa	4	11	18	25		

FEBRUARY 1896.						
S		2	9	16	23	
M		3	10[3]	17	24	
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

MARCH 1896.						
S	1	8	15	22	29	
M	2	9	16	23	30	
Tu	3	10	17	24	31	
W	4	11	18	25		
Th	5	12	19	26		
Fr	6	13	20	27		
Sa	7	14	21	28		

APRIL 1896.						
S		5	12	19	26	
M		6	13	20[5]	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3[4]	10	17	24		
Sa	4	11	18	25		

MAY 1896.						
S		3	10	17	24	31
M		4	11	18	25	
Tu		5	12	19	26	
W		6	13	20	27	
Th		7	14	21	28	
Fr	1	8	15[6]	22	29	
Sa	2	9	16	23	30	

JUNE 1896.						
S		7	14	21	28	
M	1	8	15	22	29	
Tu	2	9	16	23	30	
W	3	10	17	24		
Th	4	11	18	25		
Fr	5	12	19	26		
Sa	6	13	20	27		

JULY 1896.						
S		5	12	19	26	
M		6	13	20	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3	10	17	24	31	
Sa	4	11	18	25		

AUGUST 1896.						
S		2	9	16	23	30
M		3	10	17	24	31
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

SEPTEMBER 1896						
S		6	13	20	27	
M		7	14	21[5]	28	
Tu	1	8	15	22	29	
W	2	9	16	23	30	
Th	3	10	17	24		
Fr	4	11	18	25		
Sa	5	12	19	26		

[1] Martinmas Term. [2] Christmas. [3] Holiday in Faculty of Arts.
[4] Good Friday. [5] Edinburgh Holiday. [6] Whitsunday Term

ADDRESSES OF THE PRINCIPAL, PROFESSORS, AND UNIVERSITY LECTURERS.

I.—Principal and Professors.

Principal Sir William Muir, Dean Park House.
Professor Goodhart, 2 Drumsheugh Gardens.
„ Butcher, 27 Palmerston Place.
„ Chrystal, 5 Belgrave Crescent.
„ Seth, 16 Church Hill.
„ Calderwood, Craigrowan, 7 Napier Road, Merchiston.
„ Tait, 38 George Square.
„ Masson, The University.
„ Copeland, 15 Royal Terrace.
„ Wallace, 5 Mansfield Place.
„ Niecks, 22 Dick Place.
„ Eggeling, 15 Hatton Place, Grange.
„ Armstrong, The University.
„ Geikie, 31 Merchiston Avenue.
„ Nicholson, Eden Lodge, Newbattle Terrace.
„ Laurie, Nairne Lodge, Duddingston.
„ Baldwin Brown, 3 Rosebery Crescent.
„ Mackinnon, 9 Merchiston Place.
„ Prothero, University.
Rev. Professor Flint, Johnstone Lodge, Craigmillar Park.
„ Dobie, University.
„ Taylor, 6 Greenhill Park.
„ Charteris, Cameron House, Dalkeith Road.
Professor Sir Ludovic Grant, Bart., 29 India Street.
„ Mackintosh, 2 Drummond Place.
„ Kirkpatrick, 5 Murrayfield.
„ Rankine, 23 Ainslie Place.
„ Sir Douglas Maclagan, 28 Heriot Row.
„ Wood, 16 Buckingham Terrace.
„ Bayley Balfour, Inverleith House.
„ Rutherford, 14 Douglas Crescent.
„ Grainger Stewart, 19 Charlotte Square.
„ Sir Wm. Turner, 6 Eton Terrace.

Professor Crum Brown, 8 Belgrave Crescent.
„ Simpson, 52 Queen Street.
„ Cossar Ewart, 52 Manor Place.
„ Fraser, 13 Drumsheugh Gardens.
„ Annandale, 34 Charlotte Square.
„ Chiene, 26 Charlotte Square.
„ Greenfield, 7 Heriot Row.

II.—Professors Emeriti.

George James Allman, LL.D., M.D., formerly Professor of Natural History; Ardmore, Parkstone, Dorset.

John Stuart Blackie, formerly Professor of Greek; 9 Douglas Crescent.

Alexander Campbell Fraser, D.C.L., LL.D., formerly Professor of Logic and Metaphysics; Gorton, Hawthornden, Midlothian.

Norman Macpherson, LL.D., formerly Professor of Scots Law; 6 Buckingham Terrace.

Sir Herbert Stanley Oakeley, D.C.L., LL.D., Mus. D., formerly Professor of Music; 16 Suffolk Street, London, S.W.

Charles Piazzi Smyth, LL.D., formerly Professor of Practical Astronomy; Clova, Ripon.

III.—Professors Resigned.

Theodor Aufrecht, M.A., Ph.D., formerly Professor of Sanskrit; The University, Bonn.

Sir Archibald Geikie, LL.D., formerly Professor of Geology; Museum of Geology, Jermyn Street, London.

Sir Joseph Lister, Bart., LL.D., M.D., formerly Professor of Clinical Surgery; 12 Park Crescent, Portland Place, London, W.

Æneas James George Mackay, LL.D., Sheriff of Fife, Advocate, formerly Professor of History; 7 Albyn Place, Edinburgh.

Right Hon. Lord Playfair, LL.D., formerly Professor of Chemistry; 68 Onslow Gardens, South Kensington, London.

Robert Wallace, D.D., M.P., formerly Professor of Church History; 50 Finborough Road, London, S.W.

IV.—University Lecturers.

G. Gregory Smith, M.A., 9 Warrender Park Crescent.
Francis Robert Jamieson, M.A., 9 Duncan Street.
Alexander Douglas Thomson, M.A., 86 Marchmont Road.
Charles Tweedie, M.A., B.Sc., 5 M'Laren Road.
William Peddie, D.Sc., 2 Cameron Park.
Cargill G. Knott, M.A., D.Sc., 42 Upper Gray Street.
Robert P. Hardie, M.A., 4 Scotland Street.
Charles M. Douglas, M.A., 14 Ramsay Gardens.
Charles Sarolea, Ph.D., Litt. D., University.
Otto Schlapp, 146 Morningside Road.
Professor Campbell Fraser, D.C.L., LL.D., Gorton, Hawthornden (Gifford Lecturer on Natural Theology).
Hugh Macmillan, D.D., LL.D. (Gunning Lecturer).
Colonel F. Bailey, R.E., 7 Drummond Place.
William Fream, LL.D., B.Sc., The Vinery, Downton, Salisbury.
John P. Coldstream, W.S., University.
Thomas S. Clouston, M.D., Tipperlinn House, Morningside Place.
Douglas Argyll Robertson, M.D., 18 Charlotte Square.
James Carmichael, M.D., 22 Northumberland Street.
John Playfair, M.D., 5 Melville Crescent.
J. Beard, D.Sc., Ph.D., 53 Comely Bank Road.

University Officers.

—o—

Chancellor.

Date of Institution.		Appointed
1859.	RIGHT HON. ARTHUR JAMES BALFOUR, M.P., D.C.L., LL.D.	1891

Vice-Chancellor.

1859.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Rector.

1859.	THE RIGHT HON. J. P. B. ROBERTSON, LL.D., Lord Justice-General	1893

Principal.

1582.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Representative in Parliament.

1868.	RIGHT HON. SIR CHARLES JOHN PEARSON, Q.C.	1890

—o—

University Court.

President—THE RECTOR.

THE PRINCIPAL	*Ex officio.*			
RIGHT HON. SIR JAMES ALEXANDER RUSSELL, LL.D., Lord Provost of Edinburgh	*Ex officio.*			
ÆNEAS J. G. MACKAY, LL.D., Advocate	Assessor, nominated by Chancellor			1891
THE HON. LORD STORMONTH DARLING	Do.	nominated by Rector	1887 &	1891
JAMES COLSTON	Do.	elected by Town Council		1886
PATRICK HERON WATSON, M.D., LL.D.	Do.	elected by General Council		1887
JOHN DUNCAN, M.D.	Do.	do.	do.	1889
J. HOPE FINLAY, W.S.	Do.	do.	do.	1893
A. TAYLOR INNES, M.A., Advocate.	Do.	do.	do.	1893
SIR WILLIAM TURNER, M.B., D.C.L., LL.D., Professor of Anatomy	Do.	elected by Senatus		1887
ALEXANDER CRUM BROWN, M.D., D.Sc., Professor of Chemistry	Do.	do.	do.	1889
SAMUEL HENRY BUTCHER, LL.D., Litt.D., Professor of Greek	Do.	do.	do.	1891
HENRY CALDERWOOD, LL.D., Professor of Moral Philosophy	Do.	do.	do.	1892

Secretary—PROFESSOR TAYLOR, D.D.
Factor and Law Agent—HENRY COOK, W.S.

Auditor—THOMAS GOLDIE DICKSON, C.A.
Clerk—THOMAS GILBERT.
Assistant Clerk—JAMES DOWIE.
Secretary's Clerk—GEORGE CAMPBELL.

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Curators of Patronage.

		Appointed.
PRINCIPAL SIR WILLIAM MUIR	Elected by University Court	1887
RIGHT HON. J. H. A. MACDONALD, C.B., LL.D., Lord Justice-Clerk.....	Elected by do. . ..	1890
PATRICK HERON WATSON, M.D., LL.D.	Elected by do.	1891
RT. HON. SIR JAMES ALEXANDER RUSSELL, LL.D., Lord Provost....	Elected by Town Council	1891
JOHN CLAPPERTON.....	Elected by do.	1885
SIR THOS. CLARK, Bart.	Elected by do.	1886
GEO. AULDJO JAMIESON, C.A...	Elected by do.	1892

Secretary—R. HERBERT JOHNSTON, W.S., 66 Frederick Street.

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Senatus Academicus.

President—THE PRINCIPAL. **Secretary**—PROFESSOR KIRKPATRICK.

FACULTY OF ARTS.

Dean—GEORGE CHRYSTAL, LL.D., Professor of Mathematics.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1760	**Rhetoric and English Literature**	DAVID MASSON, LL.D...	1865	Crown.
1583	**Humanity**.....	HARRY CHESTER GOODHART, M.A.	1891	Lds. of Ses., Cur., Fac. of Adv., and W.S. Soc. [1]
1583	**Greek**.....	SAMUEL HENRY BUTCHER, LL.D., Litt.D.	1882	Curators.
1642	**Hebrew and Semitic Languages.**	JOHN DODIE, M.A., B.D.	1892	Curators.
1862	**Sanskrit and Comparative Philology** [2]	JULIUS EGGELING, Ph.D.	1875	Crown.
1882	**Celtic Languages, Literature, History, and Antiquities** [3]	DONALD MACKINNON, M.A.	1882	Cur., & Emeritus Prof. Blackie.
1583	**Mathematics**.....	GEO. CHRYSTAL, LL.D...	1879	Curators.
1583	**Natural Philosophy**...	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1583	**Logic & Metaphysics.**	ANDREW SETH, LL.D..	1891	Curators.
1583	**Moral Philosophy**.....	HENRY CALDERWOOD, LL.D.	1868	Curators.

[1] The Judges of the Court of Session nominate two Delegates, the Curators two, the Faculty of Advocates one, and the Society of Writers to the Signet one. These Delegates appoint the Professor, who receives his Commission from the Curators.

[2] This Chair was endowed by John Muir, LL.D. (Edin.), D.C.L. (Oxon.), late of the Bengal Civil Service, and by a Parliamentary vote of £200.

[3] Endowed with a sum of £14,000, raised by public subscription.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1719	**History**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Fac. of Adv., & Cur.
1893	**History**	GEORGE WALTER PROTHERO, M.A., D.Litt.	1894	UniversityCourt.
1871	**Commercial & Political Economy & Mercantile Law** [1]	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.
1879	**Fine Art** [2] (Watson Gordon Chair)	GERARD BALDWIN BROWN, M.A.	1880	Univ. Ct., Pres. R. Scott. Acad.
1876	**Theory, History, and Practice of Education** [3]	SIMON SOMERVILLE LAURIE, LL.D.	1876	Bell Trustees.

FACULTY OF SCIENCE.

Dean—JAMES GEIKIE, D.C.L., LL.D., Professor of Geology.

1583	**Mathematics**	GEORGE CHRYSTAL, M.A., LL.D.	1879	Curators.
1583	**Natural Philosophy**	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1786	**Astronomy**	RALPH COPELAND, Ph.D.	1889	Crown.
1713	**Chemistry**	ALEXANDER CRUM BROWN, M.D., D.Sc.	1869	Curators.
1767	**Natural History**	JAMES COSSAR EWART, M.D.	1882	Crown.
1676	**Botany**	ISAAC BAYLEY BALFOUR, M.D., D.Sc.	1888	Curators.
1705	**Anatomy**	Sir WILLIAM TURNER, M.B., D.C.L., LL.D.	1867	Curators.
1685	**Physiology**	WILLIAM RUTHERFORD, M.D.	1874	Curators.
1871	**Geology** [4]	JAMES GEIKIE, D.C.L., LL.D.	1882	Crown.
1868	**Engineering** [5]	GEO. FREDERICK ARMSTRONG, M.A., C.E.	1885	Crown.
1790	**Agriculture & Rural Economy** [6]	ROBERT WALLACE	1885	Lds.of Sess., Cur. & Univ. Ct.

FACULTY OF DIVINITY.

Dean—MALCOLM CAMPBELL TAYLOR, D.D., Professor of Ecclesiastical History.

1583	**Divinity**	ROBERT FLINT, D.D.	1876	Curators.
1846	**Biblical Criticism & Biblical Antiquities**	ARCHIBALD HAMILTON CHARTERIS, D.D.	1868	Crown.
1694	**Ecclesiastical History**	MALCOLM CAMPBELL TAYLOR, D.D.	1877	Crown.
1642	**Hebrew and Semitic Languages**	JOHN DOBIE, M.A., B.D.	1892	Curators.

[1] This Chair was endowed in 1871 by the Merchant Company of Edinburgh, and other Governors of George Watson's and Daniel Stewart's Hospitals, who granted a salary of £450 as the endowment.

[2] This Chair was endowed by Mr H. G. and Miss Frances Watson.

[3] This Chair was endowed by the Trustees of the late Dr A. Bell, who granted a sum of £6000 for the purpose, to which a further sum of £4500 out of the Bell Fund was added by the Educational Endowments Commission in 1887.

[4] This Chair was endowed in 1871 by a sum of £6000 mortified by Sir Roderick Impey Murchison, Bart., and by an annual vote by Parliament of £200.

[5] This Chair was endowed in 1868 by Sir David Baxter, and by an annual vote of Parliament of £200.

[6] The Professor is elected by nine Delegates, three chosen by the Judges of the Court of Session, three by the Curators, and three by the University Court.

FACULTY OF LAW.

Dean—Sir LUDOVIC GRANT, Bart., B.A., Professor of Public Law.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1707	**Public Law**	Sir LUDOVIC GRANT, Bart., B.A.	1890	Crown.
1710	**Civil Law**	JAMES MACKINTOSH, B.A.	1893	Fac. of Adv., and Cur.[1]
1719	**History (Constitutional, etc.)**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Do.[1]
1722	**Scots Law**	JOHN RANKINE, M.A., LL.D.	1888	Do.[1]
1807	**Forensic Medicine**	Sir DOUGLAS MACLAGAN, M.D., LL.D.	1862	Crown.
1825	**Conveyancing**[2]	JOHN PHILP WOOD, W.S.	1891	Cur., Dep.-Kpr. and W.S. Soc.[3]
1871	**Commercial and Political Economy and Mercantile Law**	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.

FACULTY OF MEDICINE.

Dean—THOMAS RICHARD FRASER, M.D., L.LD., F.R.S., Professor of Materia Medica.

1713	**Chemistry**	ALEX. CRUM BROWN, M.D.	1869	Curators.
1767	**Natural History**	JAMES COSSAR EWART, M.D.	1882	Crown.
1676	**Botany**	BAYLEY BALFOUR, M.D.	1888	Curators.
1705	**Anatomy**	Sir WM. TURNER, M.B.	1867	Curators.
1685	**Physiology**	WM. RUTHERFORD, M.D.	1874	Curators.
1831	**Pathology**	WILLIAM SMITH GREENFIELD, M.D.	1881	Curators.
1768	**Materia Medica**	THOMAS RICHARD FRASER, M.D.	1877	Curators.
1685	**Medicine**	Sir THOMAS GRAINGER STEWART, M.D.	1876	Curators.
1831	**Surgery**	JOHN CHIENE, M.D.	1882	Curators.
1726	**Midwifery**	ALEX. RUSSELL SIMPSON, M.D.	1870	Curators.
1807	**Forensic Medicine**	Sir DOUGLAS MACLAGAN, M.D.	1862	Crown.
1803	**Clinical Surgery**	THOS. ANNANDALE, M.D.	1877	Crown.
1741	**Clinical Medicine**	Sir THOMAS GRAINGER STEWART, M.D.	1876	
		THOMAS RICHARD FRASER, M.D.	1877	
		WILLIAM SMITH GREENFIELD, M.D.	1881	
		Diseases of Women—ALEXANDER RUSSELL SIMPSON, M.D.	1870	

[1] For each of these Chairs the Faculty of Advocates send to the Curators a leet of two, of whom the Curators must choose one.

[2] Endowed by the Society of Writers to the Signet.

[3] The Election is by—(1) Two Delegates from the Curators; (2) Two from the Society of Writers to the Signet; and (3) The Deputy-Keeper of the Signet.

FACULTY OF MUSIC.

Dean—Professor NIECKS.

Date of Institution.	Chair.	Professor.	Appointed.	Patrons.
1839	**Reid Chair of Music**	FREDERICK NIECKS.	1891	University Court.

Members of the Faculty of Music appointed by the Senatus :—Principal Sir William Muir, and Professor Kirkpatrick.

UNIVERSITY LECTURERS.

1892	**English**	G. GREGORY SMITH, M.A. (Edin.), B.A. (Oxon.).	1892	University Court.
1892	**Latin**	FRANCIS ROBERT JAMIESON, M.A.	1892	Do.
1892	**Greek**	ALEXANDER DOUGLAS THOMSON, M.A.	1892	Do.
1892	**Mathematics**	CHARLES TWEEDIE, M.A., B.Sc.	1892	Do.
1892	**Natural Philosophy**	WILLIAM PEDDIE, D.Sc.	1892	Do.
1892	**Applied Mathematics**	CARGILL G. KNOTT, M.A., D.Sc.	1892	Do.
1892	**Logic and Metaphysics**	ROBERT P. HARDIE, M.A. (Edin.), B.A. (Oxon.)	1892	Do.
1892	**Moral Philosophy**	CHARLES M. DOUGLAS, M.A., D.Sc.	1892	Do.
1894	**French Language and Literature and Romance Philology**	CHARLES SAROLEA, Ph.D., D.Litt.	1894	Do.
1894	**German Language and Literature and Teutonic Philology**	OTTO SCHLAPP.	1894	Do.
1887	**Gifford Lecturer on Natural Theology**	Emeritus Prof. CAMPBELL FRASER, D.C.L., LL.D.	1894	Do.
1889	**Gunning Lecturer**	HUGH MACMILLAN, D.D., LL.D.	1893	Do.
1889	**Forestry**	Colonel F. BAILEY, R.E.	1892	Do.
1890	**Agricultural Entomology**	WILLIAM FREAM, LL.D., B.Sc.	1891	Do.
1884	**Civil and Criminal Procedure.**	JOHN P. COLDSTREAM, W.S.	1884	Do.
1879	**Mental Diseases**	THOS. S. CLOUSTON, M.D,	1879	Do.
1883	**Diseases of the Eye**	DOUGLAS ARGYLL ROBERTSON, M.D.	1883	Do.
1885	**Clinical Instruction on Diseases of Children**	JAS. CARMICHAEL, M.D. JOHN PLAYFAIR, M.D.	1885 1889	Do. Do.
1885	**Comparative Embryology**	J. BEARD, D.Sc., Ph.D.	1894	Do.

UNIVERSITY ASSISTANTS.

IN THE FACULTY OF ARTS.

Rhetoric and Eng. Liter	GEO. GREGORY SMITH, M.A. (Edin.), B.A. (Oxon.)
Humanity	FRANCIS R. JAMIESON, M.A.
Greek	ALEX. DOUGLAS THOMSON, M.A.
Hebrew and Semitic Languages	WILLIAM B. STEVENSON, M.A., B.D.
Mathematics	CHARLES TWEEDIE, M.A., B.Sc.
Natural Philosophy	WILLIAM PEDDIE, D.Sc.
Do. (Mechanical)	THOMAS LINDSAY.

Logic and Metaphysics	R. P. Hardie, M.A. (Edin.), B.A. (Oxon.)
Moral Philosophy	Charles M. Douglas, M.A., D.Sc.
History	D. P. Heatley.

IN THE FACULTY OF SCIENCE.

Geology	George S. Corstorphine, B.Sc.
Engineering	W. H. Kerr, M.A., B.Sc.
Do., Demonstrator	W. G. Rennie, B.Sc.

IN THE FACULTY OF DIVINITY.

Hebrew and Semitic Languages	William B. Stevenson, M.A., B.D.

IN THE FACULTY OF LAW.

Civil Law	J. M. Irvine, M.A., B.Sc., LL.B.
Constitutional History	D. P. Heatley.
Scots Law	James Ballantine.
Conveyancing	Robert Connon.

IN THE FACULTY OF MEDICINE.

Chemistry	Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc.; William White Taylor, M.A.; and A. Forbes Watson, B.Sc.
Zoology	J. Beard, D.Sc., Ph.D.; Gregg Wilson, M.A., B.Sc.
Botany	James Adam Terras, B.Sc., and J. H. Burrage, B.A. (Oxon.).
Anatomy	David Hepburn M.D., C.M.; James Musgrove, M.D., C.M., and J. B. Yeoman, M.B., C.M.
Physiology	E. W. Carlier, M.D., B.Sc.; Gustav Mann, M.D., C.M.
Pathology	Robt. Muir, M.A., M.D.; David Stuart, M.B., C.M. *Laboratory Assistant*—Richard Muir.
Materia Medica	Joseph Tillie, M.D.; Wm. C. Sillar, M.B., C.M., B.Sc.
Medicine	Robert A. Fleming, M.A., M.B., C.M.
Clinical Medicine Tutors	Joseph Tillie, M.D.; Robert A. Fleming, M.A., M.B., C.M.; W. G. Sanders, M.B., C.M.
Surgery	Harold J. Stiles, M.B., C.M.; Alfred Duke, M.B., C.M.
Midwifery	J. Clarence Webster, M.D.
Forensic Medicine	Charles Hunter Stewart, M.B., C.M., D.Sc.; J. Buchanan Young, M.B., C.M., D.Sc.
Clinical Surgery Tutor	A. Logan Turner, M.D., C.M.

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Examiners.

PRELIMINARY EXAMINATION.

The Professors of or Lecturers on the several subjects, and the following additional Examiners:—

		Appointed	Patrons.
English	William Mitchell, M.A., D.Sc.	1892	University Court.
Latin **Greek**	Norman M'Lean, B.A. (Cantab.), M.A. (Edin.).	1891	Do.
Mathematics	David Beveridge Mair, M.A.	1893	Do.
Modern Languages	Charles D. Campbell..	1893	Do.
Dynamics	David Beveridge Mair, B.A. (Cantab.), M.A. (Edin.).	1893	Do.

Examiners for Degrees, &c.

I.—IN THE FACULTY OF ARTS.

The Professors of or Lecturers on the several Subjects, and the following additional Examiners:—

1. LANGUAGE AND LITERATURE.

Chairs.	Professors.	Appointed.	Patrons.
Latin and Greek	NOR. M'LEAN, B.A. (Cantab.) M.A. (Edin.)	1891	University Court.
English	WILLIAM MITCHELL, M.A., D.Sc.	1892	Do.
Modern Languages....	CHARLES D. CAMPBELL.....	1893	Do.
Sanskrit.....	GEORGE B. GARDINER, M.A., D.Sc.	1893	Do.
Hebrew and Semitic Languages.....			Do.

2. MENTAL PHILOSOPHY.

Logic and Metaphysics, Moral Philosophy	WM. MITCHELL, M.A., D.Sc.	1892	Do.
Political Economy.....	A. H. BRIGGS CONSTABLE, LL.B.	1893	Do.
Education.....	MAURICE PATERSON, B.A., LL.D.	1893	Do.
Philosophy of Law....			Do.

3. SCIENCE.

Mathematics.....	D. BEVERIDGE MAIR, B.A. (Cantab.), M.A. (Edin.).	1893	Do.
Natural Philosophy....			
Astronomy.....	J. L. E. DREYER, Ph.D.....	1893	Do.
Chemistry.....	JOHN GIBSON, Ph.D.....	1893	Do.
Zoology.....	W. HERDMAN, D.Sc.....	1893	Do.
Botany.....	J. BRETLAND FARMER, M.A.	1893	Do.
Geology.....	HENRY MOWBRAY CADELL, B.Sc.	1893	Do.

4. HISTORY AND LAW.

History	JAMES MACKINNON, M.A., Ph.D.	1893	Do.
Archæology and Art (History of).....	W. M. CONWAY.....	1893	Do.
Constitutional Law and History.....	FRED. P. WALTON, LL.B.....	1893	Do.
Roman Law.....			
Public Law.....			

II.—SCIENCE.

1. MENTAL SCIENCE.

The Professors of Logic and Metaphysics, and of Moral Philosophy.

2. PHILOLOGY.

The Professors of Humanity, Greek, Hebrew and Semitic Languages, and of Sanskrit and Comparative Philology.

Examiner in Latin and Greek for Preliminary and M.A. Examinations, appointed 16th June 1894.

JAMES CRUICKSHANK SMITH, M.A. Edin., B.A. Oxon., Classical Lecturer, Owens College, Manchester.

3. PURE SCIENCE.

The Professors of and Lecturers on the several subjects, and the additional Examiners in Mathematics, Natural Philosophy, Zoology, Chemistry, Astronomy, Anatomy, Physiology, Geology, and Botany.

4. ENGINEERING.

The Professors of and Lecturers on the several subjects, the additional Examiners in Mathematics and Chemistry, and in

		Appointed.	Patrons.
Engineering	DAVID A. STEVENSON, B.Sc., M.Inst. C.E.	1894	University Court.

5. PUBLIC HEALTH.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

		Appointed.	Patrons.
Physics	WILLIAM HARVEY, B.A., LL.B.	1893	University Court.
Laboratory Work	JAMES ANGUS CAMERON, M.D., B.Sc.	1893	Do.
Medicine in its bearings on Public Health	JAMES O. AFFLECK, M.D.	1894	Do.
Sanitation, Sanitary Law, and Vital Statistics	F.W. BARRY, M.D., D.Sc..	1892	Do.

6. AGRICULTURE.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

The additional Examiners in Mathematics, Chemistry, Botany, Natural History, Geology, and Political Economy, and in

		Appointed.	Patrons.
Agriculture	WM. SOMERVILLE, B.Sc., D.(Econ.	1893	University Court.
Veterinary Hygiene	W. OWEN WILLIAMS, F.R.C.V.S.	1893	Do.
Chemistry as applied to Agriculture	JOHN HUNTER, F.L.S, F.I.C., F.R.P.S.	1893	Do.
Political Economy	A.H. BRIGGS CONSTABLE, LL.B.	1893	Do.

III.—IN THE FACULTY OF DIVINITY.

The Professors in the Faculty of Divinity, and the following additional Examiners :—

	Re-appointed	Patrons.
WILLIAM HASTIE, B.D., D.D.	1892	University Court.
THOMAS A. BICKERTON, B.D.	1892	Do.

IV.—IN THE FACULTY OF LAW.

The Professors in the Faculty of Law, and the following additional Examiners :—

	Appointed	Patrons.
FREDERICK PARKER WALTON, LL.B.	1892	University Court.
ROBERT L. ORR, LL.B.	1893	Do.
A. H. BRIGGS CONSTABLE, LL.B. in Political Economy.	1893	Do.

V.—IN THE FACULTY OF MEDICINE.

The Professors of the Faculty of Medicine, and the following additional Examiners:—

		Appointed	Patrons.
Natural History	W. HERDMAN, D.Sc.	1890	UniversityCourt.
Clinical Surgery	J. CRAWFORD RENTON, M.D. JOSEPH M. COTTERILL, M.B., C.M.	1890	Do.
Materia Medica	WILLIAM CRAIG, M.D.	1892	Do.
Physiology	Prof. WM. STIRLING, M.D., D.Sc.	1892	Do.
Pathology	ALEXANDER BRUCE, M.D.	1892	Do.
Surgery	GEO. THOS. BEATSON, M.D.	1892	Do.
Clinical Medicine	JOHN WYLLIE, M.D.	1892	Do.
Medical Jurisprudence	FRED. W. BARRY, M.D., D.Sc.	1892	Do.
Physics	WILLIAM HARVEY, LL.B.	1892	Do.
Practice of Medicine	ALEXANDER JAMES, M.D.	1893	Do.
Midwifery	A. H. F. BARBOUR, M.D.	1893	Do.
Anatomy	D. J. CUNNINGHAM, M.D.	1893	Do.
Chemistry	JOHN GIBSON, Ph.D.	1893	Do.
Botany	J. BRETLAND FARMER, M.A.	1893	Do.

FOR SCHOOLMASTER'S DIPLOMA.

The Professor of Education and MAURICE PATERSON, B.A., LL.D. 1889

FOR TITLE OF LITERATE IN ARTS.

The Professors of and Lecturers on the several subjects, and the Examiners for Degrees in Arts.

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University Librarian.

HUGH ALEXANDER WEBSTER.

Assistants.

ALEXANDER ANDERSON.
JAMES H. S. GREGORY.
DAVID CUTHBERTSON.
CHARLES MARTIN.
GEORGE TAIT.

WILLIAM WRIGHT, *at University New Buildings.*

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Keepers of Museums.

Museum of Natural History	Professor EWART.
Anatomical Museum	Professor Sir WM. TURNER.
Do. Assistant Keeper	JAMES SIMPSON.

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Clerk of Senatus, and Sec. and Reg. of General Council	THOMAS GILBERT.
Assistant Clerks	JAMES OLIVER SINCLAIR, JAMES DOWIE
Clerk of Works	ALLAN E. L. CLARK.
Janitor	JOHN CHAPMAN.
Warders	ALEX. ADAIR, JAMES DONALDSON.

Staff of Twelve Servitors.

University of Edinburgh.

CONSTITUTION.

THE University of Edinburgh has grown into its present status out of what was originally a small College, called the "College of Edinburgh" or "The Town's College," which was founded in 1583 by the Town Council of Edinburgh, under the general powers to found educational institutions granted to them by the Charter of King James VI., dated 14th April 1582. No separate Charter of foundation is now extant; but from the first the College possessed the privilege of conferring degrees. This privilege was ratified by the "Act of Confirmation," an Act of Parliament passed in 1621, which secured to the "College of James VI." (as it had come to be called) all the rights, immunities, and privileges enjoyed by the Universities of Scotland. This ratification was renewed in the Treaty of Union between England and Scotland, and in the Act of Security. Gradually, in Acts of General Assembly, Acts of Town Council, and Acts of Parliament, the "College of James VI." came to be styled "The University of Edinburgh." But the institution remained under the absolute control and patronage of the Town Council of Edinburgh down to 1858, when, by the Universities (Scotland) Act, all the Universities of Scotland received new and autonomous constitutions.

The University of Edinburgh is a Corporation consisting of the Chancellor, Rector, Principal, Professors, Registered Graduates and Alumni, and Matriculated Students; and from 1858 to 1890 its government was vested in the Senatus Academicus, subject to the review and control of the University Court.

By the Universities (Scotland) Act, 1889, the University Court was constituted a body corporate with perpetual succes-

sion and a Common Seal; and the whole property, heritable and movable, belonging to the University, at the date of the passing of the Act, was transferred to and vested in the Court, with power to administer and manage the whole revenue and property of the University.

In addition to the various Endowments for Chairs, Fellowships, Scholarships, Bursaries, &c., the University possesses the property of the Old and New University Buildings, with the Libraries, Museums, Laboratories, Specimens, Apparatus, Furnishings, and Fittings; the Music Class Room, containing a large organ, an interesting collection of Acoustic and Antique Musical Instruments, and a valuable Library of Music; and the official residence of the Principal.

The Senatus Academicus, as heretofore, regulates and superintends the teaching and discipline of the University, subject to the provisions of the Universities (Scotland) Acts of 1858 and 1889.

It may be interesting to show the numbers of Matriculated Students in the University, and the numbers of Degrees conferred by the University, immediately before the Acts of 1858 and of 1889 respectively came into operation.

The numbers of Matriculated Students were :—

	Arts.	Divinity.	Law.	Medicine.	Total.
In 1858-59	573	90	237	526	1336
In 1888-89	1022	109	471	1949	3551

The numbers of Degrees conferred were :—

	Arts.	Divinity.	Law.	Medicine.		Science.	
				M.B., C.M.	M.D.	B.Sc.	D.Sc.
In 1859	16	—	—	—	60	—	—
In 1889	116	11	23	210	60	34	2

The Degrees in Divinity, Law, and Science were instituted since 1859.

CHANCELLOR.

The Chancellor is elected for life by the General Council. He is the Head of the University. Changes in its ordinances and in its internal arrangements, proposed or approved by the Univer-

sity Court, must receive his sanction. All Degrees are conferred by him, or his deputy, the Vice-Chancellor. The Chancellor is President of the General Council, and nominates an Assessor in the University Court. The appointments have been as follows:—

Right Hon. Lord Brougham, 1859.
Right Hon. John Inglis, D.C.L., LL.D., 1868.
Right Hon. ARTHUR J. BALFOUR, M.P., D.C.L., LL.D., &c., 1891.

VICE-CHANCELLOR.

The Vice-Chancellor is nominated by the Chancellor. He may, in the absence of the Chancellor, confer Degrees, but cannot discharge any other of the Chancellor's duties. In the Vice-Chancellor's absence Degrees are conferred by the Principal, or, in his absence, by the senior member of Senatus present.

Upon the Vice-Chancellor is imposed the duty of acting as Returning Officer at Parliamentary Elections. If there be no Vice-Chancellor at the time of an Election, the University Court appoints one to act as Returning Officer. The appointments have been—

Sir D. Brewster, appointed 1860.
Sir Alexander Grant, Bart., 1868.
Sir WILLIAM MUIR, K.C.S.I., D.C.L., &c., 1885.

RECTOR.

The Rector is elected by the Matriculated Students on the second Saturday after the beginning of the Winter Session. The term of office is three years. The next election will take place in 1896. The Rector is President of the University Court, and nominates an Assessor in the University Court. No Principal or Professor of any Scottish University is eligible for the office of Rector. The appointments have been—

Rt. Hon. W. E. Gladstone, 1859.
Thomas Carlyle, 1865.
Rt. Hon. Lord Moncreiff, 1868.
Sir W. Stirling Maxwell, Bt., 1871.
Rt. Hon. Earl of Derby, 1874.
Most Hon. Marquess of Hartington, M.P., 1877.
Rt. Hon. Earl of Rosebery, 1880.
Rt. Hon. Earl of Iddesleigh, 1883.
Most Hon. Marquess of Lothian, 1887.
Rt. Hon. George J. Goschen, M.P., LL.D., 1890.
Rt. Hon. J. P. B. ROBERTSON, LL.D., 1893.

REPRESENTATIVE IN PARLIAMENT.

In accordance with Clauses 27 to 41 of the "Representation of the People (Scotland) Act," 31 & 32 Vict., cap. 48, the Members of the General Councils of the Universities of Edinburgh and St Andrews elect a Member to serve in Parliament for these Universities.

When a poll is demanded, the votes are given by voting papers issued by the Registrar.

The appointments have been—

Sir Lyon Playfair, K.C.B., LL.D., 1868.

Rt. Hon. J. H. A. Macdonald, C.B., Q.C., LL.D., 1885, 1886.

M. T. Stormonth Darling, Q.C., 1888.

Rt. Hon. Sir CHARLES JOHN PEARSON, Q.C., 1890, 1892.

The Parliamentary constituency for 1894 is as follows :—

Edinburgh	7476
St Andrews	1474
Total in 1894	8950

UNIVERSITY COURT.

The University Court has the following powers conferred by the "Universities Scotland Act, 1858," Sec. xii. :—

1. To review all decisions of the Senatus Academicus, and to be a Court of Appeal from the Senatus in every case, except as otherwise provided in the Universities Act :

2. To effect improvements in the internal arrangements of the University, after due communication with the Senatus Academicus, and with the sanction of the Chancellor ; provided that all such proposed improvements shall be submitted to the general Council for their consideration :

3. To require due attention on the part of the Professors to the Regulations as to the mode of teaching and other duties imposed on the Professors :

4. To fix and regulate, from time to time, the Fees in the several Classes :

5. Upon sufficient cause shewn, and after due investigation, to censure any member of the Senatus Academicus, or to suspend him from his office, and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire from his office on a retiring allowance, or to deprive him of his office ; and during the Suspension of any Professor, to make due provision for the teaching of his class : Provided always that no such sentence of censure, suspension, or deprivation, or requisition on a Professor to retire from office, shall have any effect until it has been approved by Her Majesty in Council :

By Sec. xix. any of the Rules, Statutes, and Ordinances enacted by the Universities Commissioners for the purposes of the Act, may be altered or revoked by the University Court of the University to which the same are applicable, but only with the consent, expressed in writing, of the Chancellor thereof, and with the approval of Her Majesty in Council.

By the Universities (Scotland) Act, 1889, Section 5, Subsection (3), the University Court is a body corporate with perpetual succession and a common seal; and all the property belonging to the University, or to any existing college forming part of the University at the date of the passing of the Act, is thereby declared to be vested in the University Court.

By Section 6 of the last mentioned Act, the University Court, in addition to the powers conferred upon it by the Universities (Scotland) Act, 1858, subject to any ordinances made by the Commissioners, has power—

(1.) To administer and manage the whole revenue and property of the University, and the college or colleges thereof existing at the passing of this Act, including the share appropriated to such University out of the annual grant hereinafter mentioned, and also including funds mortified for bursaries and other purposes, and to appoint factors or collectors, to grant leases, to draw rents, and generally to have all the powers necessary for the management and administration of the said revenue and property:

(2.) To review any decision of the Senatus Academicus on a matter within its competency which may be appealed against by a member of the Senatus, or other member of the University having an interest in the decision, within such time as may be fixed by the Commissioners, and to take into consideration all representations and reports made to it by the Senatus Academicus and by the general council:

(3.) To review, on representation made by any of its members, or by any member of the Senatus Academicus, within such time as may be fixed by the Commissioners, any decision which the Senatus Academicus may come to in the exercise of its powers under section seven, sub-section one: Provided always, that the University Court shall not review any decision of the Senatus Academicus in a matter of discipline, except upon appeal taken either by a member of the Senatus or by a member of the University directly affected by such decision:

(4.) To appoint professors whose chairs are, or may come to be, in the patronage of the University; to appoint examiners and lecturers; and to grant recognition to the teaching of any college or individual teacher for the purposes of graduation, under any regulations on the subject laid down by the Commissioners, which regulations after the expiration of their powers may from time to time be modified or altered by the Universities Committee:

(5.) To define on application by any member of the Senatus Academicus the nature and limits of a professor's duties under his commission, subject to appeal to the Universities Committee:

(6.) To take proceedings against a principal or professor, University lecturer, assistant, recognised teacher or examiner, or any other person employed in teaching or examining under section twelve, sub-section five, of the Universities (Scotland) Act, 1858, without the necessity of any one not a member of the Court appearing as prosecutor, and for the purposes of such proceedings to call before it any member of the University to give evidence, and to require the production of documents, and also to institute and conduct any such inquiries as it may deem necessary:

(7.) To appoint from among members of the University or others, not being members of the Senatus Academicus, one third of the members of any standing committee or committees charged, by ordinance of the Commissioners under this Act, with the immediate superintendence of any libraries or museums, or the contents thereof, belonging to the University and college or colleges thereof existing at the passing of this Act, and on representation made by any of its members, or by any member of the Senatus Academicus, to review any decision which the Senatus Academicus, in the exercise of its powers, may come to in respect of the recommendations of such committee or committees:

(8.) To appoint committees of its own number consisting of not less than five members, with powers to report on any business that may be entrusted to them by the University Court, or to carry out special instructions ordered by the University Court:

(9.) To elect the representative of the University on the General Medical Council, under the Medical Act, 1886:

(10.) After the expiration of the powers of the Commission to found new professorships with the approval of the Universities Committee, and after such expiration no new professorship shall be founded except as herein [in the Act of 1889] provided.

After the expiration of the powers of the Commissioners, the University Court, by Section 21, shall have power to make such ordinances as they think fit, with the approval of Her Majesty in Council:

(1.) With respect to the appropriation of the sum allotted to such University by the Commissioners out of the annual grant hereinafter referred to:

(2.) Altering or revoking any of the ordinances affecting such University which have been or may be framed and passed under the Universities (Scotland) Act, 1858, or this Act, and making new ordinances:

Provided that such ordinances, before being submitted to Her Majesty for approval, shall have been communicated by the University Court to the Senatus Academicus and to the General Council, whose opinion thereon, if returned to the University Court within one month, shall have been taken into consideration; provided also that the said ordinances, when finally adjusted by the University Court, shall have been communicated to the University Courts of the other Universities, and that, if notice of dissent to such ordinances shall have been taken by any University Court, or by any person directly affected by such ordinance, to the University Court making such

ordinances within one month after the receipt thereof, the dissenting University Court or person may within one month after notifying dissent make a representation in regard thereto to Her Majesty in Council; provided further that no ordinance made under this section shall be of any validity until it has been approved by Her Majesty in Council, and that it shall be lawful for Her Majesty to refer such ordinances to the Universities Committee, who shall report to Her Majesty thereon: Provided further, that such ordinances shall be laid before both Houses of Parliament in the manner provided by section twenty of this Act: Provided further, that in computing the period of one month for the purposes of this section, the months of August and September shall not be counted, nor any part thereof.

Stated Meetings of the Court are held for the despatch of ordinary business on the Monday occurring during the seven days beginning on the 12th and ending on the 18th, both days inclusive, of each month, excepting the months of August and September, and on the first Monday after 19th January, if necessary, for hearing Registration Appeals. Other Ordinary Meetings may be called as the Court may direct. Special Meetings may at any time be called by order of the Rector or the Principal, or by the Secretary on a requisition specifying the object, signed by at least three members of the Court.

The University Court holds the patronage of the Chair of Music, and, in conjunction with the President of the Royal Scottish Academy, that of the Chair of Fine Art, as well as a share in the patronage of the Chair of Agriculture. It also elects three of the seven Curators, and appoints the Additional Examiners for Degrees in Arts, Science, Divinity, Law, and Medicine, and the Examiner for the Schoolmaster's Diploma.

The Court consists of the following members, viz. :—1. The Rector; 2. The Principal; 3. The Lord Provost of Edinburgh for the time being; 4. An Assessor nominated by the Chancellor; 5. An Assessor nominated by the Rector; 6. An Assessor nominated by the Lord Provost, Magistrates, and Town Council of Edinburgh; 7. Four Assessors elected by the General Council; 8. Four Assessors elected by the Senatus Academicus; 9. Such number, not exceeding four in all, of representatives of affiliated Colleges as may be appointed under and subject to the arrangements made in terms of section 15 (4), of the Act of 1889: Provided always, that the total number of repre-

sentatives of affiliated Colleges in the University Court of any University may be increased by the Commissioners or, after the expiration of their powers, by the Universities Committee, if in their opinion respectively special circumstances should arise to require such increase.

Seven members constitute a quorum. The Rector and his Assessor continue in office for three years; but in the event of the Chancellor or Rector ceasing to hold office, his Assessor continues to be a member of the University Court until an Assessor is nominated by the new Chancellor or Rector. The other Assessors continue in office for four years; but all Assessors are eligible for re-election, and no Principal or Professor of any Scottish University is eligible for election as Assessor to any other person or body than the Senatus Academicus. The Rector, and in his absence the Principal, presides at meetings of the University Court, and in the absence of both of them a chairman for the time is elected by the meeting. The person presiding at any meeting of the University Court has a deliberative vote, and also a casting vote in case of equality.

An abstract of the proceedings of the Court is given in a subsequent part of the Calendar.

The names of the present Assessors are given at page 1. The names of the Assessors previously to 1888 will be found in the Historical Appendix to List of University Graduates, published in 1889 (page 105). Former Assessors since 1888 — *Elected by Chancellor*, T. Graham Murray, LL.D., 1887-1891. *Elected by Senatus Academicus*, A. Campbell Fraser, D.C.L., LL.D., 1877-1891. Malcolm Campbell Taylor, D.D., 1889-92.

UNIVERSITIES COMMITTEE OF PRIVY COUNCIL.

There shall be a Committee of Her Majesty's Privy Council styled the Scottish Universities Committee of the Privy Council.

The Universities Committee shall consist of the Lord President of the Privy Council, the Secretary for Scotland, the Lord Justice General, if a member of the Privy Council, the Lord Justice

Clerk, if a member of the Privy Council, the Lord Advocate, if a member of the Privy Council, the Chancellor of each of the Universities, if a member of the Privy Council, the Lord Rector of each of the Universities, if a member of the Privy Council, one member at least of the Judicial Committee of the Privy Council, and such other member or members of the Privy Council as Her Majesty may from time to time think fit to appoint.

The powers and duties of the Universities Committee may, subject to any rules or regulations which may from time to time be passed by Her Majesty in Council, be exercised and discharged by any three or more of the members of the Committee, one of whom shall be a member of the Judicial Committee of the Privy Council or one of Her Majesty's Senators of the College of Justice in Scotland.

CURATORS OF PATRONAGE.

By the Universities (Scotland) Act (1858), the patronage of the seventeen Chairs, previously in the gift of the Town Council, was transferred to seven Curators—three nominated by the University Court, and four by the Town Council. Besides these seventeen Chairs, the Curators have also a share in the patronage of those of Humanity, Agriculture, Civil Law, History, Law of Scotland, and Conveyancing, which was formerly possessed by the Town Council. They have also a share in the Patronage of Celtic Languages and Literature, and Commercial and Political Economy and Mercantile Law, which were instituted after the passing of the 1858 Act. The Curators hold office for three years. The names of the present Curators are given at page 2.

REPRESENTATIVE IN GENERAL MEDICAL COUNCIL.

In accordance with the Medical Act of 1858, the Universities of Edinburgh and Aberdeen were entitled jointly to elect a Member of the "General Council of Medical Education and

Registration of the United Kingdom." The appointments have been—

1858. James Syme.
1868. John Macrobin, M.D.
1873. William Turner, M.B.
1883. John Struthers, M.D.

Under the provisions of the Medical Act of 1886, Professor Sir William Turner was appointed in December 1886 for a period of five years, as representative of the University of Edinburgh.

1886. Sir William Turner, M.B., LL.D.

From 1858 to 1890 the Senatus exercised the right of election of the Representative of the University in the General Medical Council. By the Act of 1889, the Court is empowered to elect the Representative in future.

1891. Sir William Turner, M.B., D.C.L., LL.D.

PRINCIPAL.

The Principal, formerly elected by the Town Council, is now appointed by the Curators. The office is held for life. The Principal is the resident Head of the College, and President of the Senatus Academicus ; and, in the absence of the Rector, he presides at the meetings of the University Court, and in the absence of the Chancellor and Rector he presides at the Statutory Meetings of the General Council, and also at the Special Meetings, excepting those for the election of Assessors.

Principals Elected since 1586.

1586. Robert Rollock, *previously Regent*
1599. Henry Charteris
1620. Patrick Sands
1622. Robert Boyd
1623. John Adamson
1653. Robert Leighton
1662. William Colvill
1675. Andrew Cant
1685. Alexander Monro
1690. Gilbert Rule
1703. William Carstares
1716. William Wishart
1730. William Hamilton
1732. James Smith
1736. William Wishart, *secundus*
1754. John Gowdie
1762. William Robertson
1793. George Husband Baird
1840. John Lee
1859. Sir David Brewster
1868. Sir Alexander Grant, Bart.
1885. Sir Wm. Muir, K.C.S.I.

SENATUS ACADEMICUS.

The Principal and the Professors constitute the Senatus Academicus. This body is entrusted with the superintendence and regulation of the teaching and discipline of the University. The Senatus elects four Assessors in the University Court who hold office for four years. Two retire biennially, but may be re-elected; and in the event of a casual vacancy, the person elected to fill such vacancy shall go out of office at the date when the person whom he succeeded would in the ordinary rotation have retired. It appoints two-thirds of the members of any standing committee or committees charged by ordinance of the Commissioners with the immediate superintendence of any libraries or museums, or the contents thereof, belonging to the University and college or colleges thereof existing at the passing of this Act; and receives in the first instance all reports by such committee or committees, and subject to the review of the University Court, confirms, modifies, or rejects the recommendations in such reports. It also elects a representative in the General Assembly of the Church of Scotland; two Managers of the Royal Infirmary; two Governors of George Heriot's Trust; two Governors of Morrison's Academy, Crieff; two Governors of the Spence Bursary Trust; one Governor of Dollar Institution; one Governor of Stiell's Hospital, Tranent; two-thirds of the University Library Committee; and two-thirds of the University Museum Committee. Degrees in Arts, Divinity, Law, Medicine, and Science are conferred, on the recommendation of the Senatus, by the Chancellor or Vice-Chancellor, and in the absence of both, by the Principal or senior Professor present. The Principal is President, with a deliberative and also a casting vote. In the absence of the Principal, the Senior Professor present acts as Chairman, also with a double vote. The Ordinary Meetings of Senatus are held on Saturday, 21st October, the last Saturday of November, January, February, and March; on the Saturday immediately preceding the Christmas holidays; on the last Friday of May, June, and July; on 1st August, not being a Sunday (for con-

ferring Degrees in Law, Medicine, Science, &c.); and in April (for Degrees in Arts, Divinity, Law, &c.), on a day fixed at the Meeting in the January of the preceding year. Extraordinary Meetings may be called by the Principal or by three Professors. One-third of the Senatus constitutes a quorum.

The business of the Senatus is conducted by the Secretary, who, among other duties, summons the Meetings, prepares the Minutes, and intimates business assigned to the Principal, to the Deans of Faculties, or to the Conveners of Committees. The Secretary also administers the *Sponsio Academica* to Graduates.

FACULTIES.

The University contains six Faculties, as constituted in 1893 by Ordinance 31 of the Scottish Universities Commission of 1889, viz., Arts, Science, Divinity, Law, Medicine, and Music. Each Faculty is presided over by a Dean, who is elected from among the Professors of the Faculty, with the approval of the Senatus. Persons recommended for Degrees in each Faculty are presented to the Senatus by the Dean, to whom all communications regarding the administration of the Faculty should be addressed. Persons recommended for Degrees in Science in the departments of Mental Science and of Philology are presented by the Convener of the Committee for these Degrees. The Deans of the Faculties are mentioned at pp. 2, 3, 4, and 5. The Chairs in the various Faculties are here given in chronological order. The Faculties as previously constituted are given in the CALENDAR for 1893-94, and in previous CALENDARS.

FACULTY OF ARTS.

The Faculty of Arts embraces the Chairs of Humanity (Latin), Greek, Mathematics, Logic and Metaphysics, Moral Philosophy, Natural Philosophy, Hebrew and Semitic Languages, History (two Chairs), Rhetoric and English Literature, Sanskrit and Comparative Philology, Commercial and Political Economy and Mercantile Law, Education (Theory, History, and Practice of), Fine Art, Celtic (Languages, Literature, History, and Antiquities).

Regents and Professors in the Faculty of Arts since 1583.

Regents of Philosophy from 1583 *to* 1708.

[*The Regents of Philosophy taught in rotation the four classes in the Curriculum of Arts, the "Bajans," the "Semi-Bajans," the "Bachelors," and the "Magistrands," as the Students of the first, second, third, and fourth year were respectively styled. Each Regent therefore taught every subject in the Curriculum—the Regent of Humanity being subordinate to the Regent of Philosophy, and being employed as a tutor in Classics for Unmatriculated Students. In* 1708 *the system was changed, and separate Professors for Latin, Greek, Logic and Metaphysics, Moral Philosophy and Natural Philosophy, were substituted for the Regents. A Professorship of Mathematics had previously existed.*]

1583. Robt. Rollock, *first Regent*
1583. Duncan Nairn
1585. Charles Lumisdaill
1586. Adam Colt
1586. Alexander Scrimgeour
1587. Philip Heslop
1588. Charles Ferme or Fairholm
1589. Henry Charteris
1589. Patrick Sands
1594. George Robertson
1597. William Craig
1597. John Adamson
1598. James Knox
1598. Robert Scott
1601. Andrew Young
1603. James Reid
1604. David Munro
1606. Blase Colt
1607. James Fairley
1608. William King
1611. Andrew Stevenson
1625. Samuel Rutherford
1625. Robert Ranken
1626. Thomas Crawford
1626. John Brown
1631. Alexander Hepburn
1636. James Wyseman
1638. James Wright
1638. Robert Young
1639. Duncan Forrester
1644. William Tweedie
1644. James Pillans
1647. Andrew Suttie
1653. John Wishart
1665. George Sinclair
1666. John Wood
1667. William Paterson
1679. Gilbert M'Murdoch
1679. Andrew Massie
1680. Alexander Cockburn
1682. Robert Lidderdail
1684. Herbert Kennedy
1686. Thomas Burnet
1689. Alexander Cunningham
1690. William Law
1695. John Row
1695. William Scott
1701. Charles Areskine
1703. Robert Stewart
1707. Colin Drummond

Regents of Humanity from 1597 *to* 1708.

1597. John Ray
1606. Blase Colt
1611. Oliver Colt
1611. Robert Burnet
—— Andrew Stevenson
1623. Samuel Rutherford
1626. Thomas Craufurd
1630. John Armour
1633. Alexander Gibson
1636. James Wyseman
1638. Robert Young
1644. James Pillans
1653. John Wishart
1656. William Forbes
1656. James M'Gowan
1658. Hugh Smith
1663. William Cumming
1665. Andrew Ross

1665. Thomas Bell
1676. Gilbert MacMurdo
1679. Alexander Cunningham
1689. John Drummond

Professsors of Mathematics since 1620.

1620. Andrew Young
1640. Thomas Craufurd
1674. James Gregory
1683. David Gregory
1692. James Gregory
1725. Colin M'Laurin
1747. Matthew Stewart
1775. Dugald Stewart
1785. Adam Ferguson
1785. John Playfair
1805. John Leslie
1819. William Wallace
1838. Philip Kelland
1879. GEORGE CHRYSTAL

Professors of Humanity since 1708.

1708. Laurence Dundas
1728. Adam Watt
1734. John Kerr
1741. George Stuart
1775. John Hill
1806. Alexander Christison
1820. James Pillans
1863. William Young Sellar
1891. H. CHESTER GOODHART

Professors of Greek since 1708.

1708. William Scott, *one of the Regents*
1729. William Scott, *secundus*
1730. Colin Drummond
1738. Robert Law
1741. Robert Hunter
1772. Andrew Dalziel
1805. George Dunbar
1852. John Stuart Blackie
1882. SAMUEL HENRY BUTCHER

Professors of Logic and Metaphysics since 1708.

1708. Colin Drummond, *one of the Regents*
1730. John Stevenson
1774. John Bruce
1786. James Finlayson
1808. David Ritchie
1836. Sir Wm. Hamilton, Bart.
1856. Alexander Campbell Fraser
1891. ANDREW SETH

Professors of Moral Philosophy since 1708.

1708. William Law, *one of the Regents*
1729. William Scott
1734. John Pringle
1745. William Cleghorn
1754. James Balfour
1764. Adam Ferguson
1785. Dugald Stewart
1810. Thomas Brown
1820. John Wilson
1853. P. C. M'Dougall
1868. HENRY CALDERWOOD

Professors of Natural Philosophy since 1708.

1708. Robert Stewart, *one of the Regents*
1742. John Stewart
1759. Adam Ferguson
1764. James Russell
1774. John Robison
1805. John Playfair
1819. Sir John Leslie
1833. James David Forbes
1860. PETER GUTHRIE TAIT

Professors of Hebrew and Semitic Languages since 1642.

(See Faculty of Divinity.)

Professors of History since 1719.

1719. Charles Mackie.
1753. John Gordon.
1754. William Wallace.
1755. John Pringle.
1780. Alexander Fraser Tytler.
1801. William Fraser Tytler.
1821. Sir William Hamilton.
1837. George Skene.
1842. George Frederick Ferrier.
1846. Cosmo Innes.
1874. Æneas J. G. Mackay.
1881. John Kirkpatrick.
1894. George W. Prothero.

Professors of Rhetoric and English Literature since 1762.

1762. Hugh Blair
1784. William Greenfield
1801. Andrew Brown
1835. George Moir
1840. William Spalding
1845. William Edmondstoune Aytoun
1865. David Masson

Professors of Sanskrit since 1862.

1862. Theodor Aufrecht
1875. Julius Eggeling

Professors of Commercial and Polit. Economy and Mercantile Law since 1871.

(See also Faculty of Law.)

1871. W. B. Hodgson
1880. Joseph Shield Nicholson

Professor of Education.

1876. Simon Somerville Laurie

Professor of Fine Art.

1880. Gerard Baldwin Brown

Professor of Celtic Languages, &c.

1882. Donald Mackinnon

FACULTY OF SCIENCE.

[As Constituted in 1893 by Ordinance No. 12 (General No. 7) of the Scottish Universities Commission.]

The Faculty of Science embraces the Chairs of Mathematics, Natural Philosophy, Botany, Anatomy, Chemistry, Physiology, Natural History, Astronomy, Agriculture and Rural Economy, Engineering, and Geology.

Professors in the Faculty of Science since its Institution in 1893.

Professors of Mathematics.
(See Faculty of Arts.)

Professors of Natural Philosophy.
(See Faculty of Arts.)

Professors of Botany.
(See Faculty of Medicine.)

Professors of Anatomy.
(See Faculty of Medicine.)

Professors of Chemistry.
(See Faculty of Medicine.)

Professors of Physiology.
(See Faculty of Medicine.)

Professors of Natural History.
(See Faculty of Medicine.)

Professors of Practical Astronomy since 1786.

1786. Robert Blair
1834. Thomas Henderson
1846. Charles Piazzi Smyth
1889. RALPH COPELAND

Professors of Agriculture and Rural Economy since 1790.

1790. Andrew Coventry
1831. David Low
1854. John Wilson
1885. ROBERT WALLACE

Professors of Engineering.

1868. Fleeming Jenkin
1885. GEORGE FREDERICK ARMSTRONG

Professors of Geology.

1871. Archibald Geikie
1882. JAMES GEIKIE

Professor of Technology.

1855. George Wilson
[Chair abolished in 1859.]

FACULTY OF DIVINITY.

This Faculty, the second in chronological order, comprehends the four Chairs of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism and Antiquities.

PROFESSORS IN THE FACULTY OF DIVINITY SINCE 1620.

Professors of Divinity since 1620.

1620. Andrew Ramsay
1627. Henry Charteris
1629. James Fairly
1630. John Sharpe
1648. Alexander Colvill
1649. Samuel Rutherford
1650. David Dickson
1662. Patrick Scougall
1664. William Keith
1675. Laurence Charteris
1682. John Menzies
1683. John Strachan
1690. George Campbell
1701. George Meldrum
1709. William Hamilton
1732. James Smith
1733. John Gowdie
1754. Robert Hamilton
1779. Andrew Hunter
1809. William Ritchie
1828. Thomas Chalmers
1844. John Lee
1859. Thomas J. Crawford
1876. ROBERT FLINT

Professors of Hebrew and Semitic Languages since 1642.

1642. Julius Conradus Otto
1656. Alexander Dickson
1679. Alexander Amedeus
1681. Alexander Douglas
1692. Patrick Sinclair
1694. Alexander Rule
1702. John Goodall
1719. James Crawford
1732. William Dawson
1751. James Robertson
1792. George Husband Baird
1793. William Moodie
1812. Alexander Murray
1813. Alexander Brunton
1848. David Liston
1880. David Laird Adams
1892. JOHN DOBIE

Professors of Ecclesiastical History since 1695.

1702. John Cumming
1715. William Dunlop
1726. Matthew Crawford
1737. Patrick Cumming
1762. Robert Cumming
1788. Thomas Hardie
1799. Hugh Meiklejohn
1831. David Welsh
1844. James Robertson
1861. William Stevenson
1872. Robert Wallace
1876. Malcolm Campbell Taylor.

Professors of Biblical Criticism and Biblical Antiquities since 1846.

1847. Robert Lee
1868. Archibald Hamilton Charteris

FACULTY OF LAW.

To this Faculty belong seven Chairs, viz.:—Public Law, Civil or Roman Law, History (Constitutional, &c.), Scots Law, Forensic Medicine, Conveyancing, and Commercial and Political Economy and Mercantile Law. Attendance on these classes is required by Candidates for Degrees in Law.

Professors in the Faculty of Law since 1707.

Professors of Public Law since 1707.

1707. Charles Areskine
1734. William Kirkpatrick
1735. George Abercrombie
1759. Robert Bruce
1764. James Balfour
1779. Allan Maconochie
1796. Robert Hamilton
1832. * * *
1862. James Lorimer
1890. Sir Ludovic Grant, Bt.

Professors of Civil Law since 1710.

1710. James Craig
1732. Thomas Dundas
1745. Kenneth M'Kenzie
1755. Robert Dick
1792. John Wilde
1800. Alexander Irving
1827. Douglas Cheape
1842. A. Campbell Swinton
1862. James Muirhead
1889. Henry Goudy
1893. James Mackintosh

Professors of History (Constitutional, &c.) since 1719.

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alex. Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. James Frederick Ferrier
1846. Cosmo Innes
1874. Æneas J. G. Mackay
1881. John Kirkpatrick

Professors of Scots Law since 1722.

1722. Alexander Bayne
1737. John Erskine
1765. William Wallace
1786. David Hume
1822. George Joseph Bell
1843. John Schank More

1861. George Ross
1864. George Moir
1865. Norman Macpherson
1888. JOHN RANKINE

Professors of Forensic Medicine since 1807.

1807. Andrew Duncan, *secundus*
1820. William Pulteney Alison
1822. Robert Christison
1832. Thomas Stewart Traill
1862. Sir DOUGLAS MACLAGAN

Professors of Conveyancing since 1825.

1825. Macvey Napier
1847. Allan Menzies
1856. A. Montgomerie Bell
1866. James Stuart Fraser Tytler
1892. JOHN PHILP WOOD

Professors of Commercial and Political Economy since 1871.[1]

1871. W. B. Hodgson, and re-appointed 1878.
1880. JOSEPH SHIELD NICHOLSON, re-appointed 1887.

FACULTY OF MEDICINE.

The Faculty consists of the following twelve Chairs:—Botany, Physiology, Medicine, Anatomy, Chemistry, Midwifery, Natural History, Materia Medica, Surgery, Clinical Surgery, Forensic Medicine, and Pathology. The Professors of Medicine, Materia Medica, and Pathology, are also Professors of Clinical Medicine. Some of these Chairs were instituted in the seventeenth century, but it does not appear that the Medical School and Faculty of the University were established earlier than the beginning of last century.

PROFESSORS IN THE FACULTY OF MEDICINE SINCE 1676.

Professors of Botany since 1676.

1676. James Sutherland
1706. Charles Preston
1712. George Preston

Professors of Medicine and Botany.

1738. Charles Alston
1761. John Hope
1786. Daniel Rutherford
1820. Robert Graham
1845. John Hutton Balfour

Professors of Botany.

1879. Alexander Dickson
1888. ISAAC BAYLEY BALFOUR

Professors of Medicine in 1685.

1685. Sir Robert Sibbald, James Halket, Archibald Pitcairne

Professors of Institutes of Medicine or Physiology since 1724.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. William Cullen
1773. Alex. Monro Drummond
1776. James Gregory

[1] This Chair was declared to be a Professorship in the Law as well as in the Arts Faculty by resolution of the Senatus Academicus in 1879.

1789. Andrew Duncan
1819. Andrew Duncan, *secundus*
1821. William Pulteney Alison
1842. Allen Thomson
1848. John Hughes Bennett
1874. WILLIAM RUTHERFORD

Professors of Medicine since 1724.

1724. William Porterfield
1726. { Andrew St Clair / John Rutherford
1747. Robert Whytt
1766. John Gregory
1773. William Cullen
1790. James Gregory
1821. James Home
1842. William Pulteney Alison
1855. Thomas Laycock
1876. Sir THOMAS GRAINGER STEWART

Professors of Anatomy since 1705.

1705. Robert Elliot
1708. Adam Drummond
1716. John M'Gill
1720. Alexander Monro
1754. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1846. John Goodsir
1867. Sir WILLIAM TURNER

Professors of Chemistry and Medicine since 1713.

1713. James Crawford
1726. Andrew Plummer
1726. John Innes
1755. William Cullen
1766. Joseph Black
1795. Thomas Charles Hope

Professors of Chemistry.

1844. William Gregory
1858. Lyon Playfair
1869. ALEX. CRUM BROWN

Professors of Midwifery since 1726.

1726. Joseph Gibson
1739. Robert Smith
1756. Thomas Young
1780. Alexander Hamilton
1800. James Hamilton
1840. Sir J. Y. Simpson, Bart.
1870. ALEXANDER RUSSELL SIMPSON

Professors of Natural History since 1767.

1770. Robert Ramsay
1779. John Walker
1804. Robert Jameson
1854. Edward Forbes
1855. George James Allman
1870. Sir Wyv. T. C. Thomson
1882. JAMES COSSAR EWART

Professors of Materia Medica since 1768.

1768. Francis Home
1798. James Home
1821. Andrew Duncan, *secundus*
1832. Sir Robt. Christison, Bart.
1877. THOMAS RICHARD FRASER

Professors of Surgery since 1777.

1777. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1831. John William Turner
1836. Sir Charles Bell
1842. James Miller
1864. James Spence
1882. JOHN CHIENE

Professors of Clinical Surgery since 1803.

1803. James Russell
1833. James Syme
1869. Joseph Lister
1877. THOMAS ANNANDALE

Professors of Forensic Medicine since 1807.
(See Faculty of Law.)

Professors of Pathology since 1831.
1831. John Thomson
1842. William Henderson
1869. W. R. Sanders
1881. William Smith Greenfield

Professors of Military Surgery since 1806.
1806. John Thomson
1823. Sir George Ballingall
[Chair abolished.]

FACULTY OF MUSIC.

Reid Professors of Music since 1839.
1839. John Thomson.
1841. Sir Henry Rowley Bishop
1844. Henry Hugh Pearson
1845. John Donaldson
1865. Sir Herbert Stanley Oakeley
1891. Frederick Niecks.

Principal Sir William Muir and Professor Kirkpatrick have been appointed members of this Faculty by the Senatus.

GENERAL COUNCIL OF THE UNIVERSITY.

The Chancellor, the Members of the University Court, the Professors, the Graduates, and all persons who previous to 2nd August 1861 had, as Matriculated Students, given regular attendance on the course of study in the University for four complete Sessions, or for three complete Sessions in this, and a fourth in another Scottish University—the attendance for at least two of such sessions having been on the course of study in the Faculty of Arts, are entitled to be registered as Members of the General Council. The fee for registration is £1.

The Register for the current year contains 7476 Members, and is conclusive of the rights of persons to be Members up to 1st January 1895. By the Universities Elections Amendment (Scotland) Act all candidates for graduation are required to pay the Registration Fee before they can be allowed to appear for graduation.

Under the Universities (Scotland) Act of 1858, and the Commissioners' Ordinance No. 1, section 3, following thereon, the Council meets twice a-year—viz., on the *first Tuesday after the fourteenth day of April*, and on the *last Friday in October*, at three o'clock P.M., "*to take into their consideration*

all questions affecting the well-being and prosperity of the University, and to *make representations from time to time on such questions* to the *University Court*, who shall consider the same, and return to the Council their deliverance thereon." All proposed improvements in the internal arrangements of the University "shall be submitted to the University Council for their consideration."

By the Universities (Scotland) Act, 1889, in addition to the two statutory meetings above mentioned, the Council "may hold special meetings at the instance of the Chancellor, who shall convene such meetings on a requisition from a quorum of members, and the Council may adjourn any meeting, and may appoint Committees to investigate into and report upon any matter remitted to them or to carry out instructions given to them by the Council." The Universities Commissioners under the last-mentioned Act have fixed the quorum of the General Council at ten for every complete thousand or fraction of a thousand on the register of the members, but this provision does not apply to the statutory half-yearly meetings, or to adjourned meetings.

At the meetings of the General Council, in the absence of the Chancellor, Rector, and Principal, the Chancellor's Assessor, and in his absence the Rector's Assessor shall preside; and in the absence of all of the said officials, a Chairman shall be elected by the meeting, provided that no member of the Senatus shall preside at any meeting of the Council held for the purpose of electing an Assessor or Assessors. The Chairman shall have a deliberative and a casting vote, and in case of an equality of votes at the conclusion of a poll, the Chairman, or any one appointed by the University Court to act for him, shall have a casting vote.

The General Council of this University, and the General Council of the University of St Andrews jointly, return a Member of Parliament.

The *Chancellor* and *four of the Assessors* in the University Court are elected by the Council. The Chancellor holds office

for life, and the Assessors for four years from the date of Election. Two of the Assessors retire biennially, but may be re-elected. In the event of a casual vacancy the person elected to fill such vacancy retires from office at the date when the person whom he succeeded would in the ordinary rotation have retired. No member of the Senatus Academicus of any University is entitled to vote or take part in the election of any Assessor of the General Council of that University. The next election of two Assessors will take place at the statutory half-yearly meeting in *October* 1895.

Members of General Council are entitled to the use of the University Library on payment of an annual fee of 10s. 6d., or they may compound for such annual fee by one payment of £5, 5s.

Three Standing Committees have been appointed by the General Council—viz., a Business Committee, an Ordinances Committee, and a Finance Committee. The Conveners are:

Business Committee—J. Campbell Lorimer, Esq., LL.B.

Ordinances Committee—W. Scott Dalgleish, Esq., LL.D.

Finance Committee—David D. Buchan, Esq., LL.B.

STUDENTS' REPRESENTATIVE COUNCIL.

The Universities Commissioners are empowered to lay down regulations for the constitution and functions of a Students' Representative Council in the University, and to frame regulations under which that Council shall be entitled to make representations to the University Court. The Rector may, before he appoints his Assessor, confer with the Students' Representative Council.

MATRICULATION.

University Matriculation consists in the signing of the Sponsio Academica by Students, thus entering their names in the General Roll of Students of the University, and in paying a fee of £1, 1s. for the academic year (1st October to 1st October), or a fee of 10s. 6d. for a Summer Session (1st May to 1st October). Matriculation is necessary before a Student can enter any

of the Classes in the University, excepting certain additional courses after mentioned.

Matriculated Students may be members of any of the four Faculties. They have the privilege of electing the Rector of the University. In case of an equality of votes, the Chancellor, or failing him, the Principal, has the casting vote. Students also enjoy the right of admission to the University Library, and on certain days to the Museum of Natural History. Their names are preserved in the General Album, which is the legal register of attendance at the University.

All Candidates for Graduation in Law, in Medicine and Surgery, and in Science, not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, and who do not propose to attend Classes within the University, must, at the beginning of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having in respect of such payment, a right to the use of the Library of the University.

The following is the Sponsio Academica signed by students on matriculating—

QUOD FAUSTUM FELIXQUE SIT. A. D.——

Ego Universitatis Academicae Edinburgensis Discipulus sinceré ac sancté promitto quod et syngraphâ hac meâ in perpetuum testatum cupio, mihi ante omnia cordi ac curae futurum verae pietatis studium ; me etiam in assuetis academici curriculi studiis sedulum fore, ut adolescentem bene institutum decet ; et quamdiu in illo curriculo permansero praeceptoribus omnibus morigerum memet praestiturum, nec ullius dissidii aut tumultus clam palamve vel auctorem vel participem futurum, et per reliquam vitam Universitatem Academicam Edinburgensem ipsam grato et benevolo animo prosecuturum, idque omnibus officiis pro facultate mea et occasione data testaturum esse.

MATRICULATIONS (1st May 1893 to 1st May 1894).

FOR SUMMER SESSION :—		
I. Faculty of Arts	25	
II. Faculty of Divinity	2	
III. Faculty of Law	8	
IV. Faculty of Medicine	36	
		71
FOR ACADEMIC YEAR :—		
I. Faculty of Arts	780	
II. Faculty of Divinity	77	
III. Faculty of Law	448	
IV. Faculty of Medicine	1,591	
V. Faculty of Science	155	
		3,051
Total Matriculations (1st May 1893 to 1st May 1894)		3,122

The Senatus Academicus may, with the approval of the University Court, sanction the admission of persons who are not Matriculated Students of the University to any Course of Lectures in the University not included in the Course of Study for Graduation in any Faculty, on payment to the General University Fund of an Entrance Fee of Five Shillings in addition to the authorised Class Fee ; but such payment shall not entitle such person to any other University privilege. The Courses which at present may be attended under this Regulation (if not required for Graduation) are :—

Constitutional Law and History, short additional Courses on.
Engineering, short additional Courses on.
Fine Art, short additional Courses on.
Economic History, short Courses on (in connection with Political Economy).
Civil and Criminal Procedure.
Do. Practical Class.
Mental Diseases.
Diseases of the Eye.
Clinical Instruction on Diseases of Children.
Comparative Embryology.
Forestry.
Agricultural Entomology.
Music Classes.
Practical Pathological Bacteriology.

Other Courses may from time to time be sanctioned under this Regulation.

Students are subject to the disciplinary jurisdiction of the Professors and of the Senatus Academicus. Among offences liable to be visited with severe academic penalties may be mentioned riotous or disorderly conduct within or without the University Buildings, copying at examinations, and mutilating or disfiguring books belonging to the University Library.

UNIVERSITY EXAMINERS.

PRELIMINARY EXAMINATION.

The Professors of or Lecturers on the several subjects, and five additional Examiners appointed by the University Court :—

FOR DEGREES.

The Examiners for Degrees are also appointed by the University Court.

I. *Faculty of Arts.*—The Examiners for the Degree in Arts are the Professors of or Lecturers on the Subjects and fourteen additional Examiners, in whose appointment regard must be had to their eminence in the Subjects in which they are appointed to examine. No Professor, Lecturer, or University Assistant or Demonstrator can be appointed an additional Examiner.

II. *Faculty of Science.*—The Examiners for Degrees in Pure Science are the Professors of or Lecturers on the Subjects and eight additional Examiners. The Examiners for Degrees in Engineering are the Professors of or Lecturers on the Subjects and three additional Examiners. The Examiners for Degrees in Public Health are the Professors of or Lecturers on the Subjects and four additional Examiners. The Examiners for the Degree in Agriculture are the Professors of or Lecturers on the Subjects and ten additional Examiners.

III. *Faculty of Divinity.*—The Examiners for the Degree of Bachelor in Divinity are the four Professors of the Faculty and two additional Examiners.

IV. *Faculty of Law.*—The Examiners for the Degrees of Bachelor of Laws (LL.B.) and Bachelor of Law (B.L.) are the seven Professors of the Faculty, and three additional Examiners selected from those who have graduated in Laws.

V. *Faculty of Medicine.*—The Examiners for Degrees in Medicine are the Professors in the Faculty, with fifteen additional Examiners.

VI. *Faculty of Music.*—The Examiners for Degrees in Music are the Professor of Music and additional Examiners.

VII. *For Schoolmaster's Diploma.*—The Examiners for the Schoolmaster's Diploma are the Professor of Education and an additional Examiner.

VIII. *For Title of Literate in Arts.*—The Professors of and Lecturers on the Subjects, and the additional Examiners for Degrees in Arts, &c.

ANNUAL CEREMONIALS FOR GRADUATION.

The relative precedence of each Faculty is as follows:—1. Divinity; 2. Law; 3. Medicine; 4. Arts; 5. Science; 6. Music. The Deans take precedence in their respective Faculties followed by the Members of their Faculties in the order of the dates of their Commissions.

The Public Ceremonial of Graduation in Divinity, Law, Arts, Science, and Music is held annually in April.

Degrees in Law, Medicine, and Science are publicly conferred on the first of August in each year.

Graduates must appear on these occasions in the Academic Costume proper to their respective Degrees.

ACADEMIC COSTUME.[1]

Chancellor.—Robe of Black Brocaded Satin, trimmed with Gold Lace, and with Gold Frogs down fronts and on sleeves. Black Silk Velvet Trencher, with Gold Button and Tassel.

Vice-Chancellor.—Robe and Trencher same as Chancellor's, but trimmed with Silver in place of Gold.

Rector.—Black Silk Gown, with Crimson Silk Velvet sleeves. The gown is trimmed round the collar and down the front edges with Broad Gold Lace, and the sleeves round bottom with a narrower Gold Lace. Black Silk Velvet Trencher, with Gold Button and Tassel.

Principal.—Mauve Corded Silk Robe trimmed with Velvet to match. Black Silk Velvet Trencher, with Gold Button and Tassel.

Members of University Court.—Black Silk Robe, open sleeve, with Gold Frog on each sleeve.

With all of the above, Hoods appropriate to the Degree are worn.

The ordinary form of Gowns worn by Graduates of the University is

[1] Graduates are requested to appear for Graduation wearing one hood only, viz., the one which indicates the Degree they are about to receive.

the same in all the Faculties—viz., black silk or stuff, with long sleeves. The distinctive part of the costume is in the *Hood* appropriated to each Faculty. These Hoods are as follow:

LL.D.—Black *cloth*, lined with *blue* silk.
LL.B.—Black *silk*, lined with *blue* silk, bordered with white fur.
B.L.—Black *silk*, edged with *blue* silk three inches broad, trimmed with white fur.
D.D.—Black *cloth*, lined with *purple* silk.
B.D.—Black *silk*, lined with *purple* silk, bordered with white fur.
M.D.—Black *cloth*, with appended cape, lined and faced with *crimson* silk.
M.B. and C.M.—Black *silk*, lined with *crimson* silk, bordered with white fur.
Sc.D.—Black *cloth*, lined with *green* silk.
Sc.B.—Black *silk*, lined with *green* silk, bordered with white fur.
M.A.—Black *silk*, lined with *white* silk.

The full Academic Dress for Doctors of Law, Medicine, and Science, is Gown of superfine Scarlet Cloth, loose sleeves, the cape and facings down the front covered, and the sleeves lined, with rich silk of the colour proper to the Degree. Birretum of black silk velvet.

REGULATIONS OF UNIVERSITY COURT.

I.—Absence of Professors.

24th Jan. 1887.

1. When any Professor shall be prevented from teaching his Class for more than three successive days, an arrangement shall be made for his Class being taught in his absence; and such arrangement shall be intimated to the Dean of his Faculty.

2. When any Professor has reason to expect that the demands of his Profession may involve absence from duty for more than four days in all in the course of a Session, an arrangement similar to that in Regulation 1 shall be made and intimated to the Dean of his Faculty.

3. No arrangement for teaching a Class in absence of the Professor shall continue longer than one week without the sanction of the Senatus Academicus; or, if there be no sufficiently early meeting of the Senatus, without the *interim* sanction of the Principal and Deans Committee.

4. When any Professor shall contemplate an absence from duty of more than one week, it shall be necessary for him to obtain the sanction of the Senatus for such absence, and for the arrangements for teaching his Class; and if his contemplated absence extend to four weeks or upwards, the sanction of the Senatus shall require the confirmation of the University Court.

5. No Professor shall employ any one other than a Colleague or University Assistant to teach his Class for him, without obtaining the sanction

of his Faculty; and such sanction shall be communicated to the Senatus at its first meeting thereafter.

6. The Statement of the arrangements for teaching a Class in the absence of the Professor, submitted to the authorities of the University, shall specify the remuneration proposed to be given to the Professor's Substitute.

II.—Absence of Examiners.

12th June 1876.

1. Any University Examiner who finds himself prevented from being present at any Examination at which it is his duty to act, shall intimate this to the Dean or other Chairman of his Examining Board, who, on receiving such intimation, or otherwise becoming aware of the absence of the Examiner, shall, if possible, appoint a properly qualified Substitute to act for such Examiner.

2. In every case in which a person is appointed to act as Substitute for a University Examiner, and in which his Faculty, or Examining Committee, shall consider it necessary that the Substitute shall receive remuneration, the rate of remuneration to be paid by the Examiner (whether a Professor or Additional Examiner) to his Substitute shall be fixed by the Faculty, or Examining Committee, and shall be based upon the amount of the Fees payable to the Additional Examiners attached to the Faculty or Examining Committee.

3. All absences of University Examiners, their duration and cause, and the relative arrangements made, shall be immediately reported for approval to the Senatus Academicus by the Chairman of the Board to which the absent Examiner is attached; and a similar Report shall in every case of the absence of a University Examiner be made by the Senatus Academicus to the University Court; provided always that such arrangements shall receive immediate effect when circumstances do not permit the previous approval of the Senatus Academicus to be obtained.

4. In every case in which a Professor shall apply for leave of absence from his duties generally, provision shall be made, under the existing Regulations regarding leave of absence to Professors, for the performance of his duties as Examiner, as well as for the performance of his duties as Teacher; and provision shall be made for the remuneration of his Substitute in both capacities.

III.—Applications for Additional (or Non-Professorial) Examinerships in the University.

17th February 1890.

1. Applicants should lodge sixteen copies of their applications (one of which should be signed), and sixteen copies of any testimonials they may desire to present, with the Secretary of the Court, not later than one week before the day fixed for making appointments in each case.

2. Applicants who send in testimonials must not send more than four for any one appointment.

3. Persons may be appointed to examine in two of the thirteen Subjects of the Examinations for Graduation in Medicine, but not more, and not in more than one Subject in any one Division of the Examinations.

4. Every applicant for an appointment in Divinity must hold the degree of B.D. from a Scottish University.

5. Every applicant for an appointment in Arts must be a member of the General Council of a Scottish University.

IV.—Opening of New Classes.

6th May 1868.

No class in addition to those existing in the University shall at any time be opened,—whether for the purpose of dividing the course on a subject necessary for graduation, or for teaching a class not requisite for graduation,—without the approval of the Senatus and the sanction of the University Court.

V.—Recognition of Extra-Academical Teachers.

17th Feb. 1890.

1. Every applicant for recognition shall furnish for the information of the Authorities of the University :—

(1.) A Statement of his Registered Qualification or Qualifications, and of the name of the Office, or Appointment (if any) which he holds, as a Teacher of the Subject in which he requests recognition.

(2.) A Syllabus of his Course of Lectures; or, in the case of a Practical Class, information of a similar kind.

(3.) A Statement of the number of Lectures, and of the number of Written or Oral Examinations in the Course; or, in the case of a Practical Class, information of a similar kind.

(4.) A Short description of his Accommodation for a Class; and of the Apparatus, Illustrative Specimens, Diagrams, and other appliances, at his disposal for teaching the Subject in which he desires recognition.

(5.) A Statement of his opportunities of studying the Subject, and of the length of time devoted thereto.

(6.) A Statement of the experience he has had in teaching the Subject.

(7.) A Note of the Titles of his published Contributions to the Science of the Subject.

(8.) A Statement as to whether his Course or Courses of Instruction have been already recognised by any University or other examining body, and, if so, what means were adopted for ascertaining his qualifications for teaching.

2. In the case of every Applicant for recognition residing in Edinburgh or its neighbourhood, an inspection shall be made of his teaching Appliances and Accommodation for teaching.

3. Every recognised Extra-Academical Teacher shall annually furnish the University with the information regarding his Course or Courses which is required from the University Professors as to (1.) The number of Students attending the recognised Course or Courses of Instruction; (2.) The number of meetings for ordinary Class Work in the Session, and in each week thereof, excluding meetings which fall under the next head; (3.) The number of Special Written Examinations; (4.) The system of conducting the ordinary Class Work, and the number of meetings devoted to each kind of work.

4. The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the number of Lectures, or of Meetings for Practical Instruction, in the Course; the number of occasions on which attendance was ascertained; and the number of those occasions on which the Student was present. The Certificate should also state the general scope of the Course; and, in particular, in the case of Chemistry, that the Course included Organic as well as Inorganic Chemistry; in the case of Midwifery, that it included the diseases of Women and Children; and, in the case of Practical Materia Medica, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

5. In the event of an Extra-Academical Teacher removing from the premises or building occupied by him for teaching a recognised Course, such Teacher shall be required to intimate his removal to the University Court, in order that the Court may have an opportunity of considering whether the accommodation in the building to which he has removed is adapted for the purpose of teaching the Subject in which he is recognised.

6. When application is made for the recognition of a Course taught by two or more Teachers in conjunction, information shall be given of the share to be taken by each Teacher in such conjoined Course; and the recognition of such conjoined Courses, and of each of the persons recognised as Teachers of a conjoined Course shall, *ipso facto*, terminate should one or more of the Teachers cease to conduct the Course, or should any material change be made in the share of each Teacher in the teaching of the conjoined Course.

7. The recognition of any Teacher who fails to furnish the information called for in Section 3, or an explanation relative to such failure; or who has ceased for the period of two consecutive Sessions to teach the subject on which he is recognised shall, *ipso facto*, terminate.

University Buildings.

THE University Buildings at present consist of three distinct portions: (1) The College, or University (Old) Building, with Dome, in South Bridge Street; (2) The University New Buildings (School of Medicine), Teviot Row; and (3) The Music Class Room, Park Place.

I.—THE UNIVERSITY (OLD) BUILDING.

The University (Old) Building, which covers the site of "Kirk o' Field," the scene of the murder of Darnley, contains the University Library and Reading Rooms; the Class Rooms of the Faculties of Arts, Divinity, and Law, the Natural History, and some other Science Class Rooms; the Theological Library and Reading Room; the Examination Hall; the Physical, and the Geological and Petrological Laboratories; the Fulton Engineering Laboratory; the Physical, Geological, Fine Art, and Natural History Museums; the Senate Hall, University Court Room, and the Offices of the Senatus, of the University Court, and of the Students' Representative Council.

The work of teaching began in 1583, but until the latter part of the eighteenth century, the professors and students of the University had been very imperfectly housed. In a Memorial, dated 1768, Principal Robertson complains that the buildings "poor in themselves, seem not to have been carried on according to any regular plan, such as takes place in other academical structures which have been erected on more opulent foundations; and hence the whole fabric has a mean, irregular, and contemptible appearance." At this time the number of students was estimated to be between six and seven hundred, and the number of professors was twenty-one.

Twenty years later this complaint was repeated by a writer in the "Scots Magazine," who notices that "in 1788 the buildings of the University are in the same ruinous condition that they were in in 1768, and the most celebrated University at present

in Europe is the worst accommodated." A scheme for rebuilding, which had been often discussed, was now taken seriously in hand by the Town Council, encouraged by promise of liberal aid from Government. A plan was obtained from Robert Adam, then at the height of his reputation, and the foundation stone of "the New College of Edinburgh" was laid with considerable pomp on November 16, 1789.

The original plans of Robert Adam, preserved in the Soane Museum in London, divide the space now occupied by the College buildings into two quadrangles, a smaller to the east, entered as at present from South Bridge Street, and a larger beyond it to the west, a block of academic buildings lying between. This arrangement was doubtless intended to obviate the difficulties caused by the rapid rise of the ground from north-east to south-west. Round the two courts thus formed there were not only to be Class Rooms, Museums, and a Library, but also houses for the Principal and Professors. The western side of the larger court was to be occupied by a large Graduation Hall and Chapel. Corridors and lobbies were to surround the great quadrangle, affording covered communication between the different class rooms. The buildings were begun at different points, chiefly on the eastern and northern sides, but had not proceeded far towards completion when the death of the architect in 1792, and soon afterwards a failure of funds, caused a cessation of the work. The fabric, partly old and partly new, remained in a very unsatisfactory state till 1815, when a Government Commission was appointed to collect funds and to carry out the undertaking, though in a somewhat modified form. An advertisement was then issued, inviting plans "for finishing the College of Edinburgh, on a reduced scale, leaving out the south front, and the cross building, which formed the small court in the original plan,—regard being always had to the part already executed, and to the preservation of the architecture of Mr Adam, as far as practicable." Out of nine sets of plans sent in, those of William Henry Playfair were finally selected, and under his superintendence the work progressed rapidly till its practical completion in 1828, by which date the New Buildings had cost in round figures some £161,000.

In the buildings as they appear at present, the general character of the whole design is due to Robert Adam. Some portions were actually erected by him, or completed after his death in accordance with his drawings. In other parts some modification of Adam's plans and elevations was necessary, while the designs of a third portion had to be furnished anew by Mr Playfair, who was careful in both these cases to provide that, in his own words, "the exterior of the buildings would be executed as nearly similar as possible to Mr Adam's design." The eastern exterior front, a very fine specimen of monumental architecture, with its monolithic columns 22 feet in height, was erected by Adam, and it may be noted that in the original drawings for this portion in the Soane Museum a certain amount of sculpture is introduced, which would have greatly enhanced the effect had it been added to the façade. Thus, statues were to have been placed upon the balustrade of the shallow balcony above the portico, one over each of the monolithic columns. Erected, too, by Adam, was the north-west corner of the great court, of which the circular Loggie form an admired feature, while he also carried out a considerable portion of the north front to what is now Chambers Street, and commenced the western block. The principal modification introduced by Playfair was the throwing of the two courts into one, which involved a reconsideration of the north and south interior elevations. Here Adam's plan was departed from, and the present elevations on these two sides are due to his successor. Playfair erected the elevations of the western block after Adam's designs with some very slight improvements ; but the interior treatment of the block, which he fitted up for the Natural History Museums, is his own, and the "Upper Museum," now the Natural History Laboratory, is a good specimen of his style. The "circular corners" which Adam had designed for his great court were retained by Playfair for his single quadrangle, but in order to fit them on at the eastern end, a new screen of masonry was erected on the inner front of the eastern portico. On the exterior, the north front is Adam's, and its comparative plainness is due to the fact that at the time only a narrow lane bounded the College on the side where now runs the broad

thoroughfare of Chambers Street. For the south exterior front Adam had given a handsome and ornate design, which was afterwards simplified by Playfair, but is still superior in treatment to the corresponding elevation to the north.

The difficulty of the levels in the quadrangle was overcome by Playfair in a most satisfactory manner. He designed a terrace surrounding the court, under which on the northern and eastern sides is a basement story, while access is gained from the area below by flights of steps. The whole provides a very suitable architectural base for the noble buildings surrounding the quadrangle.

The interior arrangements were considerably modified by Playfair, and his great achievement is the Library Hall, a fine gallery measuring 185 feet by 54 feet, with an arched ceiling enriched with cassettes, the effect of which is, however, marred by insufficient lighting. For all the ornamental details in the Library Hall and the Natural History Museum, Playfair furnished careful full size drawings.

The general effect of the buildings is simple and dignified, and their character thoroughly Academic. The material is mainly Craigleith stone, and the detail carving is well worked out. The single quadrangle, measuring 242 feet 6 inches from east to west, by 134 feet from north to south, has a very spacious effect, and is a great improvement on the original plan of 1789, though, as before remarked, the essentials of the design must be regarded as due to Adam. No finer specimens of the neo-classic style could be found than the interior elevations of the quadrangle, especially on the west, or the eastern front to South Bridge Street.

The Dome.

The original design of Robert Adam provided for a Dome over the eastern portal. The form he had sketched out was not, however, a pleasing one, and no steps were taken to carry out this feature until 1883, when funds came into the possession of the University, bequeathed for the purpose of erecting a Dome, by Robert Cox, Esq., W.S. It was then determined to

carry out the Dome on a new design prepared by R. Rowand Anderson, Esq., LL.D., Architect of the University New Buildings (School of Medicine). The present Dome, though in a less purely classical style than the Adam-Playfair building, is in itself a pleasing and effective structure, and a welcome addition to the architectural features of the city. An admirable finial to this fine architectural work is formed by a vigorous and athletic figure of Youth, bearing the torch of Knowledge, executed in bronze by John Hutchison, Esq., R.S.A. The Fine Art Museum is accommodated in the Dome.

II.—THE UNIVERSITY NEW BUILDINGS.
(SCHOOL OF MEDICINE.)

In 1869 the number of students had risen to more than fifteen hundred, and that of the Professors to thirty-three, while there were seventeen Class Rooms only for their accommodation. A Committee was therefore formed in 1873, and an appeal was made to the public for subscriptions for the purpose of purchasing a site for and erecting complete Class Rooms, Theatres, Laboratories, and Museums for the Faculty of Medicine, with the latest scientific improvements; for reorganising the Class Rooms of the College for the Faculties of Arts, Divinity, and Law; for providing increased and more convenient accommodation for the University Library; for erecting a University Hall for conferring degrees, for holding examinations and other public and academic ceremonials; and for improving to some extent the north front of the College building.

This appeal to the public resulted in subscriptions being received to the amount of £148,548, 2s. 5d., which, with a grant of £80,000 received from Government, and interest, rents, and value received for old material, amounted to the sum of £244,587, 4s. 8d.

These buildings (the University New Buildings, begun in 1878) were partly opened for teaching purposes in October 1880, and having been completed, were transferred by the Committee to the University in October 1888. They are situated on an irregularly shaped site formerly covered by Teviot Row,

Park Street, and Park Place, and were designed by R. Rowand Anderson, Esq., LL.D., Architect, and completed under his supervision.

In them are placed the Lecture Rooms, &c., of the Faculty of Medicine (excepting those of Botany and Natural History), the Museums of Practice of Physic, Anatomy, Chemistry, Obstetrics, Materia Medica, and Surgery; a Students' Reading Room, Students' Common Room, Faculty of Medicine Reception and Reading Room, and Office of the Faculty.

The style of architecture adopted by Dr Anderson is Italian of the Cinque Cento period. This style, developed in the end of the fifteenth and beginning of the sixteenth centuries, may be regarded as intermediate between the Gothic and the stiff Palladian work, which aims at a mere manipulation of the five orders; and it naturally commends itself on account of its plasticity and adaptability to varied internal arrangements. The main frontage presents, as its central feature, a slightly projecting elevation, pierced by the archway which forms the principal entrance. Over the arch is an ornate window, flanked by pilasters, between which are niches for statuary; and the whole is surmounted by a bold semi-circular pediment, intended to be occupied with a group of sculpture. The façade is three storeys in height except in the projecting west wing, which has an additional floor. On the ground floor the windows are square, and are surrounded with simply moulded architraves. Above these runs a well-marked string course ornamented with dentils. The first floor windows are round-headed and furnished with architraves, their arches showing boldly in the masonry of the wall. Next comes a broad frieze, relieved at intervals with circular panels, in which carved work will be placed. Over this the string course is repeated; and the upper floor windows are separated by pilasters, each being divided by a shaft which supports a circular tracery in the window head. The wall is finished at the top with architrave, frieze, and cornice, and crowned with a low-pitched roof, covered with red tiles. The external features and their relative positions have been influenced by the internal arrangements of the building.

THE M'EWAN HALL.

The building which completes the group of the University New Buildings, or School of Medicine, is the M'Ewan Hall, the munificent gift of William M'Ewan, Esq., M.P., Edinburgh. Dr R. Rowand Anderson was also the architect of this building, which stands on the ground formerly occupied by Park Street. The Greek Theatre forms the basis of the design. The internal diameter of the semicircle is 134 ft., and the dimension the other way, including the platform recess, is 107 ft.; and the height from floor to ring of centre light is 90 ft. On the north-west corner, and connecting the Hall with the present buildings, is placed the Campanile Tower, which is 32 ft. square at the base, and rises to the height of 275 ft. The tower will, in the meantime, only be carried up to the height of the other buildings, but it is hoped that at no distant date this noble part of the design may be completed. At the south-west corner is placed the entrance to the principal staircase, and on the outer circumference of the circle are placed two double stairs for access to the galleries. No fewer than seven entrances to the Hall are provided, so that easy access and speedy exit may be secured. One of the chief of these entrances is in the base of the tower. The Hall is capable of holding 3000 people, and in designing it the architect has had in view the special object which it is intended to serve. In it Degrees will be conferred, and Examinations and all public Academic Ceremonials and Concerts connected with the University will be held. A large platform and ample floor space and gallery accommodation have accordingly been provided. Provision has also been made for the accommodation of a great organ and an orchestra of over 300 performers. The space is apportioned as follows:—A flat area, to be occupied by the Graduands on ceremonial days; a raised amphitheatre of seats following the sweep of the semicircle, and two galleries, also semicircular in form, rising one above the other. Immediately at the back of the amphitheatre is a vaulted fireproof corridor, 12 ft. wide, extending round the half circle from the north-west to the south-west entrance. Above it is the first

gallery. The platform is placed on the straight side of the Hall, and is of ample dimensions, with appropriate seats for the Chancellor, the Rector, the Principal, the University Court, the Senatus, the Curators, &c. The system of construction is really that of the double wall. The inner wall which carries the roof is opened up with pillars and arches from the level of the first gallery, thrusts being transmitted by flying buttresses to the outer wall. The roof is domical in form, is deeply panelled, and pierced at the base with circular lights, and has in the centre a skylight 25 feet in diameter. It will be constructed entirely of steel. From the floor to the roof the Hall will be 90 feet in height, and with its imposing dimensions and tiers of stone pillars and arches, it will be one of the most striking and handsome Halls in the kingdom. The external elevation will conform to the early Italian of the rest of the buildings. The great circle of the Hall is divided vertically by powerful buttresses, while horizontally the lines correspond with those of the west façade. The elevation is divided into three stages ; the first is panelled with circular lights, the second is a blank wall, while the third stage is arcaded there being three arches between each buttress. On the two principal stages the buttresses have niches for figures. The wall is surmounted by a cornice and balustraded parapet, and above this appears the clerestory, which is carried on the inner circle, while over all rises the domical roof. The Hall was begun in 1889, and will probably be completed in 1895.

III.—REID SCHOOL OF MUSIC.

The School of Music, situated immediately to the south-east of the University New Buildings, was built in the year 1858, from the designs of the late David Cousin. It contains the Music Class Room, with an organ of four manuals and sixty-six stops, enclosed in a handsome carved oak case ; and a Museum containing an interesting collection of acoustic and antique musical instruments.

The architecture of the building is studied from the best and purest examples of the Italian Renaissance of the early part of the sixteenth century.

University Library.[1]

THE Library Committee consists of not more than seven members of the University or others, not being members of the Senatus Academicus, appointed by the University Court, and of such number of members appointed by the Senatus Academicus as shall be double the number appointed by the Court. The said Committee shall be charged with the immediate superintendence of the University Library, and of the contents thereof, and of any libraries acquired, or to be acquired, for the use of the University or of any class therein. The members of the said Committee, in the proportions aforesaid, are appointed by the University Court and Senatus Academicus respectively at their first meeting after the commencement of the Winter Session in each year.

LIBRARY COMMITTEE.

Principal Sir WILLIAM MUIR
Sir THOMAS CLARK, Bart. $(c)^2$ } *Joint-Conveners.*

Professor EGGELING, *Vice-Convener.*

Rev. J. Sutherland Black, LL.D. $(c)^2$; Professor Baldwin Brown; Professor Crum Brown; James Taylor Brown, LL.D. $(c)^2$; J. Burgess, C.I.E., LL.D. $(c)^2$; Professor Charteris; Professor Chrystal; James Colston $(c)^2$; Professor Copeland; Professor Cossar Ewart; Professor Flint; Professor Niecks; Professor Goodhart; Rev. Alexander Martin, B.D. $(c)^2$; J. Balfour Paul $(c)^2$; Professor Rutherford; Professor Simpson; Professor Tait.

In 1580 Mr Clement Littil or Little, left his books to "Edinbvrgh and Kirk of God thair to reman." This collection of

[1] The names of the present Librarian and of the Assistant Librarians are given at p. 8. The names of the Librarians from 1635 to the present time will be found in previous Calendars, and also in the Historical Appendix to List of Graduates of the University published in 1889, page 113.

[2] Appointed by the University Court.

about 300 volumes, chiefly theological (see list in Miscellany of the Maitland Club, vol i., 1834), was a few years afterwards transferred by the Town Council to the University, and thus became the nucleus of the University Library, which was gradually augmented by donations from Citizens of Edinburgh and from alumni of the University, and by annual contributions of Students when they took the Degree of Master of Arts.

The celebrated Poet, Drummond of Hawthornden, bequeathed his library to the University in 1627; and the gift is valuable, both from the eminence of the donor's name, and from the rare specimens of early literature with which the collection is enriched (see *Auctarium Bibliothecæ Edinburgenæ*, 1627).

Among donors may be specified, for the extent and value of their benefactions, Principal Adamson, Dr Robert Johnston, a physician in London; the Rev. James Nairne of Wemyss, in Fife; Dr John Stevenson, Professor of Logic and Metaphysics in the University; and Dr William Thomson, Professor of Anatomy in the University of Oxford. In 1872, the Library received a valuable donation from J. O. Halliwell, the eminent Shakespearean critic, of works relating to Shakespeare, collected at great cost. In 1875 a large collection of Persian and Arabic MSS. was presented by Mr J. B. Baillie of Leys. In 1879 the bequest of an extensive collection of MSS. was received from the executors of David Laing, LL.D. In 1880 the collection of works on Economic Science formed by Professor Hodgson were presented to the Library by Mrs Hodgson. In 1882 a valuable collection of works on Sanskrit Literature was presented by the family of Dr John Muir. In 1886 Mr Thomas Stratton bequeathed to the Library 110 works bearing on the study of Celtic. In 1889 William Mackinnon, Esq. of Balmakill, having purchased the library of the late Dr Cameron of Brodick, an eminent Celtic scholar, at a cost of £600, placed the books at the disposal of the University; and the same year saw the bequest of a collection of MS. Shakespeariana by Mr Halliwell-Phillipps, and the presentation, by Mrs Wilson, of a number of volumes from the library of the late Professor Wilson. A "Lorimer Collection," in memory of the late Professor Lorimer and in

accordance with his understood desire, was presented by his son-in-law, Sir David Chalmers.

The University Library contains about 187,000 printed volumes, and about 3000 volumes of MSS., many of which are of great interest and value.

The University possesses a number of valuable pictures and busts, which are kept in the Library and the Senate Hall.

The Library Hall, and the suite of rooms connected with it, occupy the south side of the College quadrangle.

The Library is open for the purpose of giving out Books to Readers, either on loan or for reference, every lawful day during the Winter Session, from Ten to Four o'clock, except on Saturdays, when it is closed at One o'clock, and during the Summer Session and Autumn from Ten to Three, and on Saturdays from Ten to Twelve, except as aftermentioned. During the month of August, and during the Christmas vacation and the week in which the Spring Holiday occurs, the Library (not the Reading-Rooms) is open from Ten to One, except on Saturdays and holidays. The holidays are—the Queen's Birthday, Christmas Day, New Year's Day, Good Friday, and the Edinburgh Spring and Autumn Holidays. The Students' Reading-Room is also open during the Winter Session every evening (Saturdays excepted), from Eight to Ten P.M. A special Reading Room has been set apart for the Lady Students; and the general Reading Room is open to them at night.

For Regulations regarding the READING ROOMS (see pages 58 and 59).

The following Regulations, enacted in 1862, relate to the general management of the Library:—

I. The Librarian has the ordinary Management of the Library, subject to the superintendence of the Library Committee.

II. The Librarian and the Assistant Librarians are appointed by the Senatus Academicus, who have the power of suspending or dismissing them, subject to an appeal to the University Court.

III. All books ordered for the Library are sent direct to the

Librarian, and forthwith entered by him in the Catalogue, and noted with distinguishing marks; and no person is allowed to use or borrow any book until it has been entered in the Catalogue, and noted.

IV. The Senatus Academicus, or the Library Committee, have power, from time to time, to make provision for the manner in which the ordinary business of the Library, in regard to borrowing and consulting books, is conducted, by establishing a regular and authentic record of borrowing and returning books on such a system as secures their due return and preservation.

V. The Librarian is required from time to time to prepare a list, to be submitted to, and adjusted and approved by, the Senatus, and when so adjusted and approved, to be kept by the Librarian, of such books, manuscripts, and other works, as ought not to be lent out of the Library, and which shall not be lent out on any terms; and the Senatus make regulations for allowing access to such works for consultation.

VI. The Librarian is required from time to time to prepare a list, to be submitted to, and adjusted and approved by, the Senatus, and when so adjusted and approved, to be kept by the Librarian, of such works as ought not to be lent out of the Library, except upon special application, and by special permission of the Library Committee; and the Senatus, from time to time, make general regulations as to the conditions under which such works may be borrowed; and in addition to such general regulations, the Library Committee may, in each individual case of borrowing such works, impose such special conditions as they may think necessary or expedient: Provided always, that every such special permission, and all such additional conditions imposed by the Library Committee, are entered in the Minute-book of the Committee.

VII. A general Inspection of the Library of the University, and of the record kept, as above provided by Section IV., of the

borrowing and returning of books, takes place *annually in the second week of October.*

VIII. During the period of the annual Inspection the Library is closed, and all works whatever, and by whomsoever borrowed, must be returned to the Library before the commencement of such period, under a penalty, previously fixed and publicly notified by the Senatus, of not less than one shilling a volume; and in the event of any volume not being returned before the expiration of one week after the last day of the inspection, the fine is repeated weekly until such volume is returned, or until a copy of the work of the same edition, and of equal value is, at the expense of the borrower, placed in the Library in its stead: Provided always, that the amount of the fine in the case of works borrowed by special permission as aforesaid, may be fixed either by general regulation of the Senatus, or by special condition imposed by the Library Committee in any individual case.

IX. The use of the Library *by persons not being Students of the University* is subject to the following regulations:—

1. Each Member of the Senatus Academicus is entitled to have in his possession, at one time, twenty-five volumes but not more.
2. Each Member of the General Council is, in each year in which he shall have paid a subscription to the Library of ten shillings and sixpence, entitled to have in his possession at one time four volumes, but not more: Provided always, that a payment, instead of such yearly subscription, of a composition of five guineas entitles a person to the like privilege for life. In regard to the use of the Library by Members of the General Council, the year is held to date from the *fifteenth day of October.*
3.[1] In consideration of the Annual payment of five pounds by the Royal College of Surgeons to the University, each

[1] In abeyance since March 1887.

Fellow of the College resident within ten miles of Edinburgh, is, in each year in which he pays a subscription of one guinea to the Library of that University, entitled to have in his possession at one time ten volumes, but not more. The College of Surgeons and the members thereof, as such are not entitled, in virtue of any former agreement or otherwise, to any privilege or use of the Library, except as herein is specially provided, and as regards such use of the said Library the year is held to date from the *fifteenth day of October.*

4. Subject always to the provision as to the return of books at the annual period of inspection, every person in each of the above classes is entitled to retain each book for one month from the date of borrowing, if the book has been borrowed at any time between the *first day of October* and the *thirtieth day of April inclusive*, and for two months from the date of borrowing, if the book has been borrowed at any time between the *first day of May* and the *thirtieth day of September inclusive;* and further, after the expiration of such period of one month or of two months, as the case may be, he is entitled to retain each book until the annual period of inspection, unless notice is received by him from the Librarian, requiring the return of such book, which notice shall be issued on application being made for the same by any person entitled to the use of the Library, or by order of the Senatus Academicus, or of the Library Committee. The form of notice requires the return of the book within a certain short period, to be specified therein, under a penalty of not less than one shilling a volume, if the book be not returned within such period, and after the expiration thereof, under a further penalty of sixpence a volume for each day, as long as the book is not returned, until the amount of the fine exceeds the sum for which the book can be replaced in the Library, such penalties to be also specified in such notice. In

the event of the Library possessing more than one copy of the book so applied for, and of all the copies being out of the Library, such notice as aforesaid must be sent to the earliest borrower.

X. The use of the Library by *Matriculated Students of the University* is regulated as follows :—

1. Every Matriculated Student is entitled to have in his possession two volumes at one time ; and is entitled to retain any book for two weeks from the date of borrowing ; and further, to re-borrow any book for successive periods of two weeks, unless an application for the same shall, in the meantime, have been made by another person entitled to the use of the Library. It is in the power of the Senatus Academicus, if they shall think it expedient, to allow Students, either generally or during any particular period of the year, to be in possession of more than two volumes at a time.
2. It is in the power of the Senatus Academicus, from time to time, to make such regulations as to a deposit of money by Students borrowing books from the Library, as they may think expedient ; and also to regulate the use of the Library by Students in consulting books in the Library itself.

   [Every Student before borrowing books must exhibit his Matriculation Ticket and at least One Professor's Ticket, and deposit £1 at the Matriculation Office, after which his name will be enrolled in the Library books.]

3. No certificate of attendance upon a class may be granted by a Professor to any Student without the production of evidence to the Professor that the Student has duly returned all books which he may have borrowed from the Library.

XI. Students enrolled by the University of Edinburgh as attending the lectures of extra-academical teachers in Edinburgh

(under the sixth sub-section of the sixth section of Ordinance, No. 8, Edinburgh, No. 3), are entitled to the like privileges in connection with the Library of that University, and are subject in the same manner to any regulations to be made by the Senatus, as Matriculated Students of the University; and no certificate of attendance on the lectures of any such teacher may be given to any Student so enrolled without the production of evidence to the teacher that the Student has duly returned all books which he may have borrowed from the Library.

XII. It is in the power of the Senatus Academicus, from time to time, to grant the use of the Library to such extent, and on such conditions, as they may think expedient, to persons for purposes of literary research, and that whether such persons are members of the University or not. But no such privilege can in any case be granted except by minute of the Senatus, specifying the grounds on which the grant is made, and the conditions which have been attached thereto, an extract of which minute must be forthwith transmitted to the University Court.

XIII. All grants of the use of the Library made by the Senatus Academicus, in pursuance of the preceding section, terminate at the annual period of inspection of the Library, but may be renewed under like conditions, if again applied for, on the expiration of that period: Provided always, that the Library Committee may be empowered by the Senatus to renew any such grant until the first meeting of Senatus after the expiration of the annual period of inspection, but no longer.

XIV. In the event of any book being lost or injured while in the possession of a person entitled to the use of the Library, he is liable either to replace the same, or to pay such fine, either as representing the value of the book, or otherwise, as may be fixed by the Senatus Academicus, or by the Library Committee, in the event of their having been empowered by the Senatus to fix the amount of such fines.

XV. So long as any person remains in possession of a book which he is not entitled to retain, or allows any fine incurred by

him to remain unpaid, the right of such person to borrow or retain any books whatever, or to exercise any of the privileges of the Library, is suspended and remains in abeyance.

XVI. No book can, in any case, be given out of the Library except to the borrower in person, or to some one having written authority from him.

XVII. On the expiration of the annual period of inspection, the Librarian must report to the Senatus Academicus in reference to the year then ended :—

1. The particulars of every case of admission to special privileges in the use of the Library :
2. The particulars of every case in which a person's right to the use of the Library has been suspended, or is in abeyance :
3. Every case of a book belonging to the Library having been replaced at the expense of a person entitled to the use of the Library :
4. A list of all books belonging to the Library known or found at the time of the inspection to be amissing or seriously injured :
5. Any other matter which the Librarian may think it of importance to bring under the notice of the Senatus, or regarding which the Senatus may have directed him to report :

and the Senatus is required to forward a copy of the Librarian's Report to the University Court with their remarks.

XVIII. At the conclusion of the annual period of inspection, a list is made of all persons who may have failed to return by that time any books borrowed by them, or to pay any fines incurred, along with the names of the books so unreturned, and the amounts of the fines then due ; and this list is exhibited in a conspicuous place in the Library ; and no name may be removed therefrom, until in each case the book or books be returned or replaced, or the fine or fines, which may have become due, be paid.

The following Supplementary Regulations are now in force :—

I. The provision of Sub-section 1 of Section X. of the above Regulations is limited in its application to the use of the Library by Students who are not Graduates of the University; and, as regards such Students, it is in the power of the Senatus Academicus, if they think it expedient, to fix a certain longer period than two weeks from the date of borrowing as the period during which they are entitled to retain books, and that either generally or as applicable to any particular portion of the year, as the Senatus may think expedient. Any such extended period, and also the portion of the year to which the same applies, must be specified in the minute of the Senatus authorising the same, and an extract of such minute must be forthwith transmitted to the University Court.

II. Subject to the preceding Regulations, and specially to the Regulations in Sub-section 4 of Section IX., the following classes of persons are entitled to the use of the Library, to the extent and under the conditions hereinafter specified, that is to say:—

1. Every person who has retired, or who shall hereafter retire, from the office of Principal or Professor on a retiring allowance, is entitled to have in his possession at one time ten volumes, but not more.

2. Any assistant to a Professor, to whom the Senatus Academicus think it expedient to grant the privilege of the Library, is entitled to have in his possession at one time ten volumes, but not more.

3. The Librarian is entitled to have in his possession at one time ten volumes, but not more; and any Assistant Librarian to whom the Senatus Academicus think it expedient to grant the privilege of the Library is entitled to have in his possession at one time four volumes, but not more: Provided always, that all books borrowed by the Librarian, or by any such Assistant Librarian as aforesaid, are duly and regularly entered in the ordinary Records of the Library as being so borrowed, in the same manner as books borrowed by other persons.

READING ROOMS.

I. University (Old) Buildings.

There is attached to the Reading Room of the University Library a separate collection of books set apart for the consultation of Students.

Any Student wishing to consult books from this Reading Room Collection must insert in one of the slips provided for the purpose the number of his (or her) Matriculation Ticket, his Name and Residence, and the Title of the Book he may wish to consult, and present the slip to the Librarian in attendance.

Each slip so presented will render the person who has signed it responsible for the book named upon it. The counterfoil of slip should, therefore, in each case be re-claimed from the Librarian in attendance, when the Book is returned, or whenever the Book applied for is not available.

Every volume must be returned by the person who has used it, before he leaves the Reading Room. Students are forbidden to leave on the table the Books used by them ; they are required to place them in the Librarian's hands, and to demand back the counterfoils of their slips. To prevent confusion, this should be done a few minutes before the close of each hour by those who have to attend classes at the commencement of the next hour.

In addition to the books in the Reading Room Collection, each Student is allowed to consult in the Reading Room Two Volumes daily from the General Library, provided always that he has handed in on the previous day, before 2 o'clock P.M., slips applying for these two works. The same rules will then apply to such books as to those consulted from the Reading Room Collection.

No conversation, or noise likely to disturb readers, is permitted in the Reading Room.

The Librarian is responsible for the management of the Reading Room. Any point of difficulty that may arise must be referred to him for decision, or, if necessary, through him to the Library Committee.

Every Student, on first applying for books in the Reading

Room, must exhibit his Matriculation Ticket for Registration in the Book kept for the purpose in the room.

All books taken into the Room from the General Library shall be carefully examined and returned to their place in the General Library each day. No books shall be issued from the General Library, for use in the Reading-Room, after 3.20 in Winter or after 2.30 in Summer; and all books from the General Library shall be given up in the Reading-Room at 3.45 in Winter and 2.45 in Summer.

The Reading-Room is open every night of the week except Saturday during the Winter Session, between 8 and 10 P.M., and is available for either Gentlemen or Lady Students. Books required from the General Library must be demanded in writing before 3 o'clock.

A Special-Reading Room has been set apart for the Ladies during the day.

II. University New Buildings.

In the University New Buildings is a Students' Reading-Room containing Books of Reference for those attending the Classes in the Faculty of Medicine. The Regulations as to consulting Books are similar to those in the Reading-Room in the University (Old) Buildings. See p. 58. It is open daily, from 9 A.M. to 5 P.M. except on Saturdays, when it is closed at 12 noon. It is open in September and during the week in which the Spring Holiday occurs (Saturday excepted), from Ten to One. It is closed during August and the Christmas Holidays, and on holidays and Saturdays during the Summer vacations.

THEOLOGICAL LIBRARY.

This Library was founded in 1698 for the special use of Students in Theology. It contains above 10,000 volumes. The management, by the amended constitution (1863), is vested in a Committee of six Curators, chosen by ballot, by the Cives of the Library, from their own number. Students of Divinity of this

University, or any who have been Students of Divinity at any Scottish University, are admitted as Cives of the Library on payment of an annual contribution of two shillings and sixpence in the former case, and of five shillings in the latter. No one who, when a Student of Divinity in this University, has failed to enter as a Civis, is in any after year allowed to do so, until he has paid up the arrears of two shillings and sixpence for each year of his Theological Course in which he has failed to pay the said contribution. No Civis can be elected a Curator unless he be at least in the second year of his attendance at the Divinity Hall. The election takes place in the second week of December, one-third of the Curators going out annually by rotation. The Curators elect one of their own number to be Treasurer. The Curators and Treasurer report the state of the funds, &c., to the Cives, the Theological Faculty, and the Senatus Academicus. The books purchased are selected by the Curators, subject to the approval of the Faculty of Divinity, and are restricted to theological works, and works subservient to theological study. The Professor of Divinity, who is *ex officio* Honorary Librarian, appoints annually an acting Librarian. Books may not be kept out of the Library longer than two months.

PORTRAITS AND BUSTS IN THE SENATE HALL, LIBRARY, COURT ROOM, ANATOMICAL MUSEUM, MUSIC CLASS ROOM, AND DOME.[1]

I. PORTRAITS.

There are twenty-seven Portraits of Benefactors, Principals, Professors, and others, by Raeburn, Sir John Watson Gordon, and other Artists, in the Senate Hall, four in the Library, sixteen in the University Court Room, and one in the Music Class Room.

Portraits presented since 1890.

In Senate Hall.

James Lorimer, M.A., LL.D., Dr Jur., Professor of Public Law (1862-1890).

[1] There is a separate printed Catalogue of the Portraits and Busts in the University, and of the Torrie Collection. A detailed Catalogue will also be found in the Calendar for 1890-91, p. 61, as well as in the previous Calendars.

In Court Room.

General Sir Joseph Straton, Benefactor of the University, presented by Colonel G. L. Fraser, on behalf of the late Miss J. Straton Graham of Kirkside.

II. Busts.

There are forty Busts in the Upper Library Hall, two in the Anatomical Museum, and one in Room in Dome.

In order to honour and perpetuate the names of Benefactors who have founded Scholarships, Bursaries, or new Chairs in the University, the University authorities have made arrangements for placing their Busts or Portraits in the Library and University Court Room.

Regarding as Benefactors the eminent Professors who have elevated the character of the University by their writings or discoveries, the University desires to procure Portraits or Busts of James and David Gregory, Colin Maclaurin, Matthew Stewart, Dr Cullen, Joseph Black, Dr James Gregory, Dr Alison, Dr Chalmers, Sir Chas. Bell, Lord Woodhouselee, Dr Thos. Chas. Hope, Professors Ross, Macdougall, Muirhead, Sellar and Campbell Fraser.

Busts presented since 1890.

In Library Hall.

Rt. Hon. John Inglis, D.C.L., LL.D., Lord Justice-General, Chancellor of the University (1868-1891).

John Rae, M.D., LL.D., Arctic Explorer, presented by his widow, Mrs Rae.

James Miller, M.D., LL.D., F.R.S.E., &c., Professor of Surgery in the University (1842-64), presented by his son, Alexander Gordon Miller, M.D.

TORRIE FINE ART COLLECTION.

Sir James Erskine of Torrie, by a Will, dated April 1834, bequeathed to the University his Pictures, Bronzes, and Marbles, "for the purpose of laying a foundation for a Gallery for the encouragement of the Fine Arts." The collection is at present temporarily deposited in the National Gallery until funds can be obtained for its suitable display in the College, and for carrying more fully into effect the intentions of the testator.

The Pictures, forty-five in number, include choice specimens of the works of different Masters, especially in the Flemish and Dutch Schools. The Marbles, seventeen in number, and twenty-three Bronzes, have been chosen with a correct appreciation of the merits of this department, and the whole collection reflects credit on the taste and public spirit of Sir James Erskine.

Museums.

A MUSEUM COMMITTEE, consisting of three members of the University or others, not being members of the Senatus Academicus, appointed by the University Court, and of six members appointed by the Senatus Academicus, is charged with the immediate superintendence of all Museums belonging to the University, and of the contents thereof, and of any collections, furniture, or apparatus, or objects acquired, or to be acquired, for the use of the University or of any class therein. The members of the Committee, in the proportions aforesaid, are appointed by the University Court and Senatus Academicus respectively at their first meeting after the commencement of the Winter Session in each year.

Members of Committee appointed by the University Court.

The Right Hon. the Lord Provost; Patrick Heron Watson, M.D.; John Duncan, M.D.

Appointed by the Senatus Academicus.

Professors Tait, Geikie, Fraser, Greenfield, Sir William Turner, Rutherford.

The University contains the following Museums, several of which belong partly to the Professors of the respective subjects :—

1. The NATURAL PHILOSOPHY MUSEUM contains a large and very valuable collection of physical apparatus, chiefly of modern construction.

2. MUSEUM OF MUSIC AND MUSICAL INSTRUMENTS. — A very interesting and valuable collection of acoustic and musical instruments.

3. GEOLOGICAL MUSEUM.—This collection is for class purposes. It exhibits the characters of minerals and rocks, and the typical fossils of the different geological systems.

4. FINE ART MUSEUM.—A small collection of casts, photographs, and drawings, illustrating the main points in the history of classical art. The collection is housed in the Dome above the portal of the University.

5. MUSEUM OF THE ROYAL BOTANIC GARDEN. — This Museum is open to Students.

6. THE PHYSIOLOGICAL MUSEUM.—This museum contains a large collection of Physiological Instruments, Microscopes and Microscopical Appliances, Diagrams, and Preparations, partly belonging to the University and partly to the Professor.

7. PRACTICE OF PHYSIC MUSEUM.—The Practice of Physic Museum contains pathological specimens, drawings, models, diagrams, and charts, the property of the Professor.

8. THE ANATOMICAL MUSEUM.—This Museum was founded in 1800 by Dr Monro, *secundus*, who presented his own Anatomical Collection, and that of his father, to the University, "to be used by his future successors in office for the purpose of demonstrating and explaining to the Students the structure, physiology, and diseases of the human body." In the year 1859, Sir David Monro, M.D., presented a collection of anatomical preparations, which had been formed by his father, Dr Alexander Monro, *tertius*. Numerous additions were also made to the Museum by the late Professor Goodsir, more especially in the department of Comparative Anatomy, and on his death the Senatus Academicus purchased from his representatives his Private Museum, which has been added to the Collection. The Museum now contains several thousand specimens in illustration of Human Anatomy, both normal and pathological, and of Comparative Anatomy.

The Conservator will be glad to receive contributions of rare and interesting specimens from Graduates and former Students of the University. He is especially desirous of making the

collection thoroughly representative of the osteology of the different Races of Men, and requests the gift of skulls and other bones of the skeleton from present and former pupils.

The Collection was transferred in the Session 1884-5 to the University New Buildings for the School of Medicine in Teviot Row, where it is arranged in a large and handsome Hall possessing two galleries. It is open at certain hours to all matriculated students. The pathological collection is placed in the upper gallery. The spirit-preparations in illustration of normal Human and Comparative Anatomy are arranged in the lower gallery. The osteological collection is disposed in the cases on the floor of the Museum, and suspended in the centre of the Hall. In 1887 the Henderson Trustees committed to the custody of the Conservator of the Museum their valuable collection of crania and casts.

Conservator of the Museum, the Professor of Anatomy; Assistant-Conservator, Mr James Simpson.

9. Chemistry Museum.—Sir Lyon Playfair, on his resignation of the Chair of Chemistry, presented to the University the collection of chemical substances which he used in illustrating his lectures. This collection has been from time to time increased by presents from chemical manufacturers and others, and also by the addition of substances prepared in the University Laboratory.

10. The Obstetrical Museum.—With the exception of a few wet and dry preparations left by Professor Hamilton, contains instruments, preparations, models, and diagrams, collected by Sir James Y. Simpson, and added to by the present Professor of Midwifery, to whom they belong.

11. The Museum of Natural History.—The old Museum of Natural History was established in 1812 in connection with the University. It contained Zoological, Geological and Mineralogical Collections. The greater portion of it was formed by the exertions of Professor Jameson, who was for fifty years Professor of Natural History and Regius-Keeper of the Museum. In 1854 the Museum was transferred by the Town Council, at that time

the Patrons of the University, to Government, under whose control it has since continued, and the whole of the collections were at that time removed from the rooms occupied by them in the University to the Natural History Department of the New Museum of Science and Art. They are still, however, available for the educational purposes of the University, and are freely accessible to the Students attending the classes of Natural History and Geology.

A Zoological Museum is now being formed in the University. Graduates, former Students and others interested in the Natural History Department will greatly aid in this important undertaking by presenting specimens to the Keeper—the Professor of Natural History.

12. Materia Medica Museum.—The Materia Medica Museum contains one of the most complete collections of medicinal and food substances in this country. The collection was founded by Professor Andrew Duncan. His successor, Sir Robert Christison, during his long incumbency of the Professorship, added a large number of valuable specimens, which were, for the most part, mounted by himself with singular neatness. The present occupant of the Chair has made further extensive additions. The Museum has been greatly enriched by interesting donations to the Professor from former members of the Class in all parts of the world. Besides the general collection, there is a Students' Reading Museum, containing specimens of the medicinal substances usually employed in this country, which has been formed and arranged by the present Professor of Materia Medica.

13. Surgical Museum.—This collection was formed by the late Professor Spence, and has been largely extended by the present Professor, to whom it now belongs. During the last five years many additions have been made, both of pathological preparations and of plaster and gelatine casts, illustrative of Surgical Anatomy and Pathology. A complete catalogue may, on application, be consulted by practitioners of medicine.

THE ROYAL BOTANIC GARDEN AND ARBORETUM.

The Royal Botanic Garden and Arboretum, Inverleith Row, is connected with the University, in so far as the Professor of Botany delivers his Lectures in the Lecture-hall in the Garden. The grounds extend to about 60 acres, and there is an extensive range of Greenhouses and Hothouses, with a large Palm-house. There is an arrangement of herbaceous plants according to the Natural System.

The Garden is open daily. Specimens of plants for study are supplied to Students so far as practicable.

The Botanical Museum in the Garden is open daily to Students, and the University Herbarium, which is placed in the Garden, may also be consulted between the hours of 10 and 1, and 2 and 5, under the direction of the Professor or the Curator.

The Botanical Laboratory in the Garden is open daily for work and original research.

I.

FACULTY OF ARTS

(INCLUDING THE DEPARTMENTS OF LANGUAGE AND LITERATURE, MENTAL PHILOSOPHY, SCIENCE, AND HISTORY AND LAW.)

1894-5.

Dean.

PROFESSOR CHRYSTAL, LL.D.,
5 *Belgrave Crescent, Edinburgh.*

Programme of Classes.

Students who do not intend to graduate in Arts may attend any of the Classes in the Faculty on payment of the Matriculation and Class Fees and without having passed any Preliminary Examination. Those who intend to graduate must pass the Preliminary Examination before attendance on any Class will count for Graduation. The Classes in the Faculty of Arts are now open to Women, with the exception of a few classes in which provision has not yet been made for teaching them in the University. Provision has, however, been made to admit Women to Graduation in Arts who have received the requisite instruction at certain other Academic Schools in Edinburgh in the subjects in which classes are not open to them in the University. *See Regulation, page* 127.

The classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated. They will meet for the last time before the Christmas vacation on Friday, 21st December; will re-assemble on Tuesday, 8th January 1895, *and will be closed on Friday, 29th March* 1895. *The Annual Graduation Ceremonial in Arts, &c., will be held on Saturday, 13th April* 1895.

WINTER SESSION, 1894-95.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees. £	s.
I.—Department of Language and Literature.				
Junior Latin	16 Oct., 9 o'cl. & also on Mon. & Wed. 11 o'cl.	Prof. Goodhart	3	3
Senior Latin[1]	16 Oct., 10 ,,		3	3
Honours Latin	18 Oct., 12 ,,		3	3
Junior Greek	17 Oct., 10 ,, & also on Tues., Thurs., & Fri., 11 o'cl.	Prof. Butcher	3	3
Senior Greek[1]	16 Oct., 11 o'cl.		3	3
Honours Greek	18 Oct., 10 ,,		3	3
Classical Archæology	17 Oct., 1 ,,	Prof. Baldwin Brown	2	2
English	16 Oct., 4 ,,	Prof. Masson	3	3
English Lit. (Honours Half Course)	9 Jan., 3 ,,	G. Gregory Smith, M.A.	2	2[2]
English Lang. (Honours Half Course)	22 Oct., 3 ,,		2	2[2]
French (Pass)[1]	19 Oct., 3 ,,	Charles Sarolea, Ph.D., D.Litt.	3	3
French (Honours)	22 Oct., 4 ,,		3	3

[1] Students who wish to take the Classes of Senior Latin, Senior Greek, French, or German, as qualifying for Graduation in Arts, must have previously passed in Latin (Higher Standard), Greek (Higher Standard), French, or German respectively, either as part of their Preliminary Examination or in addition thereto.

[2] The fee for two Half Courses in the same Winter Session is £3, 3s.

WINTER SESSION, 1894-95—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees. £	s.
I.—DEPARTMENT OF LANGUAGE AND LITERATURE—*continued.*				
German (Pass)[1]	20 Oct., 4 o'cl.	Otto Schlapp ...	3	3
German (Honours)	22 Oct., 3 ,,		3	3
Sanskrit (Junior Class)	23 Oct., 3 ,,	Prof. Eggeling	3	3
Do. (Senior Class)[2]	23 Oct., 3 ,,		3	3
Hebrew (Junior Class)	30 Oct., 1 ,,	Prof. Dobie.....	3	3
Do. (Senior Class)[2]	30 Oct., 2 ,,		3	3
Arabic[2]	30 Oct., 3 ,,		3	3
Syriac[2]	31 Oct., 3 ,,		2	2
Celtic[2]	30 Oct., 4 ,,	Prof. Mackinnon..	2	2[3]
Do. Advanced	5 Nov., 3 ,,		1	1
Gaelic Class	6 Nov., 3 ,,		1	1
II.—DEPARTMENT OF MENTAL PHILOSOPHY.				
Logic & Psychology	16 Oct., 1 o'cl.	Prof. Seth	3	3
Metaphysics and Hist. of Philosophy (Honours Class)	22 Oct., 3 ,,		2	2[4]
Moral Philosophy	16 Oct., 2 ,,	Pro. Calderwood	3	3
Do. Honours Class	24 Oct., 3 ,,		2	2[4]
Political Economy[5]	16 Oct., 5 ,,	Prof. Nicholson...	3	3
Education (Theory, History, & Art of)	17 Oct., 3.10 ,,	Prof. Laurie.....	3	3
Philosophy of Law[6] (45 *Class Meetings*)	16 Oct., 3 ,,	Prof. Sir Ludovic Grant, Bart...	2	2
Natural Theology (Gifford Lectureship)	Ten Lectures in Nov., Dec., Jan., & Feb. Dates to be afterwards announced.	Emeritus-Prof. Campbell Fraser	Free.	
III.—DEPARTMENT OF SCIENCE.				
Junior Mathematics	16 Oct., 12 o'cl.	Prof. Chrystal...	3	3
Senior Mathematics[7]	16 Oct., 9 ,,		3	3
Mathematics, Intermediate Honours	17 Oct., 11 ,, (*Mon.*, *Wed.*, *Fri.*)		3	3

[1] See footnote 1, page 69.

[2] Students who wish to take the Classes of Sanskrit, Hebrew, Arabic, Syriac, or Celtic as qualifying for the M.A. Degree, must have previously passed an Examination in these Languages equivalent in standard to the Examinations in Latin and Greek in the Preliminary Examination.

[3] For Lectures only, £1, 1s.; when taken as a Graduation Course, £3, 3s.

[4] When taken as a Graduation Course, £3, 3s.

[5] This Course up to Christmas qualifies in Economics for the B.Sc. in Agriculture.

[6] Half-Course.

[7] Students who wish to take the Classes of Senior Mathematics or Natural Philosophy as qualifying for Graduation in Arts, must have previously passed the Intermediate or Higher Standard Examination in Mathematics either as part of their Preliminary Examination or in addition thereto.

WINTER SESSION, 1894-95—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees. £	s.
III.—DEPARTMENT OF SCIENCE—*continued.*				
Mathematics (Advanced Honours)	17 Oct., 10 o'cl. (*Mon., Wed., Fri.*)	Prof. Chrystal.....	3	3
Natural Philosophy[1]..	16 Oct., 11 ,,	Prof. Tait.....	3	3
Do. (Advanced Honours)(*Mon., Wed., Fri.*).....	24 Oct., 12 ,,	Prof. Tait.....	3	3
Physical Laboratory..	5 Nov., 10 ,,	Prof. Tait.....	2	2
Natural Philosophy (Intermediate Honours) (*Mon., Wed., Fri.*).....	17 Oct., 9 ,,	Cargill G. Knott, D.Sc.	3	3
Dynamics, Advanced Science (*Mon., Wed., Fri.*).....	17 Oct., 10 ,,	Cargill G. Knott, D.Sc.	3	3
Astronomy (*Mon., Tues., Wed., Thurs.*)	23 Oct., 11 ,,	Prof. Copeland ..	3	3
Chemistry, with Practical Chemistry	9 Oct., 10 ,, / 3 Dec., 11 & 2 ,,	Prof. Crum Brown	4 3	4 3
Zoology[2].....	9 Oct., 12 ,,	Prof. Ewart....	4	4
Do. (Advanced)...	9 Oct., 3 ,,	Prof. Ewart....	2	2
Practical Zoology (Elementary).....	9 Oct., 11 ,,	Prof. Ewart....	2	2[3]
Practical Zoology (Advanced).....	9 Oct., 1.30 ,,	Prof. Ewart....	3	3
Botany (Advanced)	9 Oct., 11 ,,	Prof. Balfour..	2	2[4]
Practical Botany (Advanced)	9 Oct., 11 ,,	Prof. Balfour..	3	3[3]
Geology.....	16 Oct., 4 ,,	Prof. Geikie.....	4	4

[1] See footnote 7, page 70.
[2] With Practical Zoology, a full Course, but the whole Course must extend over at least 75 separate days.
[3] Besides charge of 10s. for Laboratory Expenses.
[4] Besides Garden fee of 5s.

WINTER SESSION, 1894-95—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers	Class Fees. £	s.
IV.—DEPARTMENT OF HISTORY AND LAW.				
History (Honours Course on Wycliffe)	18 Oct., 2 o'cl.	Prof. Kirkpatrick.....	3	3
History (British).....	16 Oct., 12 ,,	Prof. Prothero ...	3	3
History (Honours Course on Creation of British Empire)	19 Oct., 10 ,,			
Ecclesiastical History.	30 Oct., 11 ,,	Prof. Taylor.....	3	3
Archæology and Art (History of).....	16 Oct., 3 ,,	Prof. Baldwin Brown	3	3
Classical Archæology (Honours Course) (*Mon., Wed., Fri.*)	17 Oct., 1 ,,		3	3
Constitutional Law and History[1].....	(In Summer at 5 o'clock.)	Prof. Kirkpatrick	2	2
Roman Law.....	16 Oct., 4 o'cl.	Prof. Mackintosh....	2	2
History of Roman Law (44 *Class Meetings*).....	... ...		4	4[2 3]
Public International Law (45 *Class Meetings*)[1].....	8 Jan., 3 ,,	Prof. Sir Ludovic Grant, Bart.	2	2

SUMMER SESSION, 1895.

The Classes will be opened as follows, and will be closed on Friday, 19th July.

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees. £	s.
I. DEPARTMENT OF LANGUAGES AND LITERATURE.				
Senior Latin (Graduation Half-Course)	1 May, 9 o'cl.	F. R. Jamieson, M.A.	2	2
Third Latin (Honours Graduation Half-Course)	1 May, 10 ,,		2	2
Senior Greek (Graduation Half-Course)...	1 May, 10 ,,	A. D. Thomson, M.A.	2	2
Honours Greek..	1 May, 9 ,,		2	2
English Literature Honours Half-Course (*Mon., Wed., & Fri.*)	2 May, 12 ,,	G. Gregory Smith, M.A.	2	2

[1] Half-Course. [2] Fee for Winter Session.
[3] Fee for both Winter and Summer, £5, 5s.

SUMMER SESSION, 1895—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.
			£ s. d.
1. DEPARTMENT OF LANGUAGES AND LITERATURE—*continued.*			
French	1 May,	Hours to be afterwards arranged.	
German	1 May,		
Sanskrit	1 May, 3 o'cl.	Prof. Eggeling...	3 3 0
Elementary Hebrew[1]	1 May, 10 ,,	Prof. Dobie and Assistant.	1 11 6
Elementary Arabic	1 May, 11 ,,		2 2 0
2. DEPARTMENT OF MENTAL PHILOSOPHY.			
Ancient Philosophy (Honours Half-Course, *Mon.*, *Wed.*, & *Fri*)	2 May, 11 o'cl.	R. P. Hardie, M.A.	2 2
Psychology (Honours Half-Course, *Mon.*, *Wed.*, *Fri.*)	2 May, 12 noon	C. M. Douglas, M.A., D.Sc.	2 2
3. DEPARTMENT OF SCIENCE.			
Senior Mathematics (First Graduation Half-Course)	1 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	2 2
Senior Mathematics (Second Graduation Half-Course)	1 May, 12 ,,		2 2
Advanced Mathematics	1 May, 10 ,,		2 2
Physical Laboratory	1 May, 10 ,,	Prof. Tait and Assistant.	2 2
Physics (*mainly for Students of Medicine*)	1 May, 12 ,,	Prof. Tait.	3 3
Applied Mathematics (Electricity and Magnetism)	1 May, 11 ,,	C. G. Knott, D.Sc.	2 2
Advanced Experimental Physics	1 May, 10 ,,	W. Peddie, D.Sc.	2 2
Practical Chemistry	1 May, 2 ,,	Professor Crum Brown.	3 3
Chemistry (Organic) Advanced Class (*Tues.*, *Wed.*, *and Thurs.*)	1 May, 1 ,,		2 2

[1] To prepare Students for entering the Junior Class in Winter Session.

SUMMER SESSION, 1895—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees. £	s.
3. DEPARTMENT OF SCIENCE—*continued.*				
Zoology (Advanced)	1 May, 3 o'cl.	Prof. Ewart	2	2
Practical Zoology (Elementary)	1 May,[1]	Prof. Ewart	2	2[2]
Practical Zoology (Advanced)	1 May,[1]	Prof. Ewart	3	3[2]
Botany[3]	1 May, 8 ,,	Prof. Balfour	4	4[4]
Practical Botany	1 May, 9 ,,	Prof. Balfour	2	2
Field Demonstrations on *Saturdays*		Prof. Balfour		
Geology (*Mon., Wed., Fri.*)	2 May, 4 ,,	Prof. Geikie	3	3
Field Demonstrations *on Saturdays*	2 May, 4 ,,	Prof. Geikie		
4. DEPARTMENT OF LAW AND HISTORY.				
Constitutional Law and History[5]	13 May, 5 o'cl.	Professor Kirkpatrick.	2	2

TUTORIAL CLASSES.

Classes.	Days and Hours.	University Assistants.	Class Fees. £	s.
Junior Humanity (Preliminary Class)	1 May, 12	Francis R. Jamieson, M.A., Lecturer on Latin Literature.	2	2
Junior Greek (Preliminary Class)	1 May, 11	A. Douglas Thomson, M.A., Lecturer on Greek Literature.	2	2
Natural Philosophy (Advanced Honours)	1 May, 9	William Peddie, D.Sc., Lecturer on Natural Philosophy.	2	2

[1] At hours to be arranged.
[2] Besides charge of 10s. for Laboratory Expenses.
[3] With Practical Botany a full Course, but the whole Course must extend over 75 separate days.
[4] Besides Garden Fee of 5s.
[5] Qualifies as a Half-Course for Graduation in Arts and in Law under the new Regulations.

The following means are afforded for Practical Instruction :—

LABORATORIES.

The Physical Laboratory, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

The Royal Observatory is open to Students of Practical Astronomy on Friday evenings from 8 P.M.

The Chemical Laboratories (distinct from the Practical Chemistry Room), completed in 1885, contain accommodation for forty Students. The Laboratories are fitted with all necessary apparatus for chemical analysis and research, open daily, under the superintendence of the Professor, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc.; A. F. Watson, B.Sc.[1][2]

Zoology Laboratories, for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the superintendence of the Professor, assisted by J. Beard, D.Sc., Ph.D.[1]

The Royal Botanic Garden Laboratory, open daily, for the practical study of plants and for botanical research, under the superintendence of the Professor, assisted by J. A. Terras, B.Sc., and J. H. Burrage, B.A.

Geological and Petrological Laboratory, for practical instruction in the study of Minerals and Rocks, is open on Mondays, Wednesdays, and Fridays from 2 to 4, under the superintendence of Professor Geikie.

MATRICULATION.

Students are required to take out their Matriculation Ticket and Class Tickets for each course of Lectures which they propose to attend, not later than fifteen days after the commencement of the course. Matriculation consists in paying during each year of study an entrance fee to the University, and in inscribing the name in the Students' Album.

The Matriculation Fees are :—

For the Academical Year, 1st October to 1st October, .	£1 1 0
For the Summer Session only, 1st May to 1st October, .	0 10 6

But Candidates who appear for Examination in July, or for Graduation in August, are required to pay the Matriculation fee of £1, 1s., unless previously matriculated for the whole year.

[1] Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

[2] For Fees for Chemical Laboratory for part of Winter or for part of Summer Session see under Faculties of Medicine and Science.

The Curriculum in Arts.[1]

—o—

COURSES OF LECTURES.

I.—DEPARTMENT OF LANGUAGE AND LITERATURE.

HUMANITY—(Latin).

PROFESSOR GOODHART.

Junior Class—Will be taught by the Assistant, under the supervision of the Professor. 9 to 10 o'clock five days a week, and on Mondays and Wednesdays, 11 to 12.

The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace, Ovid, or Tibullus, Livy, Sallust, and Cicero;—

2. Lectures on Roman History or Literature;—

3. Exercises in Latin Prose Composition;—

4. Translation of passages from Latin into English, and from English into Latin "at sight."

5. Written Examinations.

Books recommended.—Bradley's Arnold's Latin Prose. Allen's Second Latin Exercise Book. Pelham's Outlines of Roman History. Wilkins' Primer of Roman Literature. Wilkins' Primer of Roman Antiquities.

During the Winter Session 1894-95 the following books will be read:—Livy, Bk. V.; Cicero, *Pro Sulla;* Virgil *Æneid*, Bk. VIII.; Horace, *Satires*, Bk. I.; *Tibullus*, Bk. I.

Senior Class—10 to 11 five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[2]

The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace Cicero (*Letters* or *Speeches*), Tacitus;—

[1] The annual amount payable for Matriculation, Class Fees, &c., of the regular Course in Arts may be estimated at about £10, 10s.

[2] See footnote 1, page 69.

2. Lectures on Roman History or Literature ;—
3. Weekly Exercises in Latin Prose ;—
4. Written Examinations.

Books recommended.—The New Latin Primer (Postgate and Vince) ; Pott's Hints towards Latin Prose Composition ; Pelham's Outlines of Roman History ; Cape's Early Empire ; Cruttwell's History of Latin Literature.

During the Winter Session 1894-95, the following books will be read :—Horace, *Epistles*, II. ; Martial I., II., III., IV. (Sellar and Ramsay's Selections) ; Tacitus, *Annals*, Bk. VI.

Third (Honours) Class—12 to 1.

The Third (Honours) Latin Class meets four days a week. It is intended to assist the studies of Candidates for University Scholarships and Graduation with Honours.

The work of the Class consists of—

1. Readings and explanations of some of the more difficult Latin Authors, such as Tacitus, Lucretius, Plautus, Martial, &c.;—

2. Lectures on Roman History and Literature, chiefly in connexion with the Books read in the Class ;—

3. Essays on questions arising out of the Lectures or Books read, and Exercises in Latin Prose Composition ;—

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

During the Winter Session 1894-95, the following books will be read :—Plautus, *Trinummus ;* Lucan, *Pharsalia*, I.; Selections from Cicero's Letters ; Tacitus, *Annals*, parts of Bks. XII.-XV.

Summer Session, 1895.

FRANCIS R. JAMIESON, M.A., *Lecturer.*

Senior Class—9 to 10 five days a week.

This Class qualifies as a half-course for Graduation.[1]

The work of the Class consists of—

1. The reading of the Latin authors prescribed for the Degree Examination in October 1895 and April 1896 ;—

[1] See footnote 1, page 69.

2. Lectures on Roman Literature, chiefly bearing on the authors read ;—

3. Lectures on Roman History, treating of the period prescribed for the Degree Examination ;—

4. Exercises in Latin Prose Composition ;—

5. Written Examinations on the work done in the Class ;—

6. Translation of passages from Latin into English, and from English into Latin "at sight."

The full Course may be completed either by attendance during another Summer Session or by attendance during half of a Winter Session.

Third (Honours) Class—10 to 11.

The Third (Honours) Latin Class in the Summer Session qualifies as a Half-course for Graduation with Honours in Classics. The Class meets four days a week, and is intended to assist the studies of Candidates for University Scholarships, for Graduation with Honours, and for the Indian Civil Service.

The work of the Class consists of :—

1. Readings and explanations of some of the more difficult Latin Authors, such as Tacitus, Lucretius, Plautus, Martial, &c.;—

2. Lectures on Roman History and Literature, chiefly in connection with the books read in the Class ;—

3. Essays on questions arising out of the lectures or books read, and exercises in Latin Prose Composition ;—

4. Written examinations on work done in the Class, and on subjects prescribed for voluntary reading.

During the Summer Session of 1895, the books read will be selected from the programmes of work for Honours Graduation in April 1896 and April 1897.

Tutorial Class.

The Junior Class is intended to meet the wants of Students who are preparing for the Preliminary Examination to be held in October next, and the work to be done will be selected with that end in view.

GREEK.

PROFESSOR BUTCHER.

Junior Class.—Will be taught by the Assistant, under the supervision of the Professor. 10 to 11 o'clock five days a week, and 11 to 12 on Tuesdays, Thursdays, and Fridays.

The work of the Class consists of—

1. Readings of some Greek author, as Xenophon, Lucian, Plato (an easy dialogue), Homer, Euripides, or Aristophanes (selections);—
2. Lectures on Greek History or Literature;—
3. Exercises in Greek Prose Composition;—
4. Translation of Unseen Passages;—
5. Written Examinations.

Books recommended.—W. G. Rutherford's Greek Grammar, and First Greek Syntax; F. E. Thompson's Elementary Greek Syntax; Clyde's Greek Syntax; Jebb's Primer of Greek Literature; Peile's Primer of Philology; Fyffe's Primer of Greek History; Cox's General History of Greece, or W. Smith's History of Greece, or Oman's History of Greece.

Senior Class—11 to 12 five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[1]

The work of the Class consists of—

1. Readings of some Greek author, such as Thucydides, Demosthenes, Herodotus, Plato; Homer; a play of Aeschylus, Sophocles, Euripides, or Aristophanes;—
2. Lectures on Greek Literature, History, or Philosophy;—
3. Greek Prose Composition, or Translation of an Unseen Passage once a week, and a Lecture on the passage when the exercises are returned;—
4. Written examinations on the work done in the Class, and on subjects prescribed for voluntary reading;—
5. Greek Verse Composition (voluntary).

Books recommended.—W. G. Rutherford's Greek Grammar,

[1] See footnote 1, page 69.

and First Greek Syntax; Goodwin's Greek Moods and Tenses; Greek Syntax, by F. E. Thompson; Sidgwick's Greek Prose Composition; Jebb's Primer of Greek Literature; Müller & Donaldson's History of Greek Literature; Jevon's History of Greek Literature, or Mahaffy's History of Greek Literature; Cox's General History of Greece, or W. Smith's History of Greece, or Oman's History of Greece; Greek Verse Composition (Sidgwick and Morris); An Introduction to the Comparative Grammar of Greek and Latin, by King and Cookson.

During the Winter Session 1894-95, the following books will be read:—Homer, *Odyssey*, XIII.; Plato, *Republic*, B. I.

The subject for Private Readings will be Euripides, *Iphig. in Tauris* (England's Edition, Macmillan & Co., recommended).

Third (Honours) Class—10 to 11.

The Third (Honours) Greek Class meets four days a week. It is intended to assist the studies of Candidates for University Scholarships and Graduation with Honours.

The work of the Class consists of—

1. Readings and explanations of some of the more difficult Greek Authors, such as Thucydides, Demosthenes, Plato, Aristotle, Aeschylus, Pindar, &c.;—

2. Lectures on Greek Literature, History, or Philosophy;—

3. Greek Composition and Translation of Unseen Passages;—

4. Occasional Critical Papers and Essays;—

5. Written Examinations on the work done in Class, and on subjects prescribed for voluntary reading.

During the Winter Session 1894-95, the work of the Class will be Aeschylus, *Agamemnon;* and Plato, *Gorgias* (W. H. Thompson's Edition recommended).

Summer Session, 1895.

A. DOUGLAS THOMSON, M.A., *Lecturer.*

Senior Class—10 to 11 five days a week.

This Class qualifies as a half-course for Graduation.[1]

The work of the Class consists of—

[1] See footnote 1, page 69.

1. The reading of the Greek authors prescribed for the Degree Examination in October 1895 and April 1896 ; –

2. Lectures on Greek History or Literature ;—

3. Greek Prose Composition, and Translation of Unseen Passages ;—

4. Written Examinations.

The full Course may be completed either by attendance during another Summer Session or by attendance during half of a Winter Session.

Third (Honours) Class—9 to 10.

The Third (Honours) Greek Class meets four days a week. It is intended to assist the studies of Candidates for University Scholarships and Graduation with Honours.

The work of the Class consists of :—

1. The reading of books selected from the programme of work for Graduation with Honours in 1896 and 1897 ;—

2. Lectures on Greek History or Literature ;—

3. Greek Prose Composition, and Translation of Unseen Passages ;—

4. Written examinations.

This Class qualifies as a Half-course for Graduation with Honours. The full Course may be completed either by attendance during another Summer Session or by attendance during half of a Winter Session.

Junior (Tutorial) Class—11 to 12 five days a week.

This Class is intended to meet the wants of Students who are preparing for the Preliminary Examination to be held in October next, and the work to be done will be selected with that end in view.

CLASSICAL ARCHÆOLOGY.

PROFESSOR BALDWIN BROWN.

Under the new Regulations Classical Archæology may be taken as one of the optional subjects for Honours in Classics.

An Honours Course of fifty lectures on this subject will be

delivered in the Winter Session, 1894-5, in the Fine Art Class Rooms, on Mondays, Wednesdays, and Fridays, at 1 P.M.

Additional Class-meetings of a tutorial character for the assistance of students will be held as often as is found desirable, and at hours to be afterwards arranged.

The treatment of the subject will embrace :—

1. A general survey of the field of study ;—

2. An examination of selected passages from ancient authors, bearing on the History of Classical Art ;—

3. A special study of one particular branch of the subject, the theme chosen for 1894-5 being the critical discrimination of successive styles in the works of Greek Sculptors. (Other special subjects, such as the History of Greek Vase Painting, or the Types of Greek Coins, will be taken up in succeeding Sessions.)

The text-books will be—Overbeck's "Schriftquellen" (a collection of passages from ancient authors bearing on Classical Art), and Murray's "Handbook of Greek Archæology" (London, John Murray).

The subject will be treated from the artistic standpoint, which is now more and more insisted on by writers on this branch of classical study. A high degree of accuracy and considerable acquaintance with the most important Greek and Latin authorities will be required of Candidates for Honours, but no previous special knowledge either of Art or of Archæology will be expected on the part of those joining the Class. The different branches of the subject, so far as time permits, will be opened up from the beginnings, and students will be assisted in the Tutorial Classes to obtain a proper understanding of technical terms, and an appreciation of the artistic points which will come up for discussion in the more formal Lectures. They will also have access at suitable times to the collection of illustrations referred to in the Lectures, and to the Class Library, which contains some of the standard works on the subject.

Professor Baldwin Brown will be glad to hear from any student who wishes to take the subject with a view to affording additional information, and advising as to preliminary study.

SANSKRIT AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

For Honours Course, see under Sanskrit and Comparative Philology, page 87.

RHETORIC AND ENGLISH LITERATURE.

PROFESSOR MASSON.

The business of the Class will comprehend :—

I. Till about Christmas, two parallel courses of Lectures : one on the Principles of English Style and Composition, with the relative portions of the Ancient Rhetoric ; the other on the Literary History of the British Islands as far as to 1250, with special attention to the Anglo-Saxon Literature, and with a view of the History of the English Language from its Anglo-Saxon stage to the beginnings of the present English.

II. From about Christmas to the end of the Session, a Course of Lectures on the History of English and Scottish Literature from 1250 to the present time : divided into Periods thus :— (1.) From 1250 to 1400, ending with Chaucer, Langland, and Barbour; (2.) From 1400 to 1580, including the English Poets from Lydgate to Wyatt, Surrey, and Sackville, and the Scottish Poets from James I. to Dunbar, Gavin Douglas, and Lyndsay ; (3.) From 1580 to 1625, called "The Elizabethan Period," and including Spenser, Bacon, Shakespeare, and their Contemporaries; (4.) From 1625 to 1688, or the Period of Milton and Dryden ; (5.) From 1688 to 1789, or from Dryden to Cowper and Burns, called generally "The Eighteenth Century"; (6.) From 1789 to the present time, or from Wordsworth and Scott to Tennyson and Browning. Under each period there will be a synopsis of its principal poets and prose-authors ; the lives and writings of the more important of these will be reviewed more at large ; and the general aim will be to exhibit the successive movements and variations of our Language and Literature in their connexions with the course of our National and Social History.

III. Instruction in English Composition, &c. During part of

the Session one of the meetings in each week will be devoted to practical work of various kinds, including brief written exercises to be done by the Students in the Class-room. Subjects will also be prescribed for more extensive Essays to be written at home. There will be Prizes for merit in Essay-writing, in addition to the general Class-Prizes.

Text-Books and Books recommended. — Bain's "English Composition and Rhetoric"; Hodgson's "Errors in the Use of English"; Morley's "First Sketch of English Literature"; Chambers's "Cyclopædia of English Literature"; "Three Centuries of English Poetry"; Morris's "Historical Outlines of English Accidence"; Sweet's "Anglo-Saxon Reader."

Honours Courses.[1]

G. Gregory Smith, M.A., *Lecturer.*

A.—Old and Middle English.

An Honours Half-Course of Twenty-five Lectures on the History of Old and Middle English.

The work of the Class (which will meet on Monday, Wednesday, and Friday from 3 to 4, beginning on Monday, 22nd October) will consist of—

1. An Historical Outline of the Development of the English Language.

2. The Study of selected Texts, including some of the Texts prescribed for the Examination for the Honours Degree.

3. Old English Palæography.

Text-books, in addition to those recommended for the Honours Degree.—Sweet's "Oldest English Texts" and "History of English Sounds," Oliphant's "Old and Middle English," Ellis's "Early English Pronunciation," J. A. H. Murray's "Dialects of Southern Scotland" (Historical Introduction), and Skeat's "Facsimiles of Old English Manuscripts."

[1] Any two of these three Half-Courses are equivalent to a full Course for Graduation with Honours. The fee for each Half-Course, if taken separately, is £2, 2s. The fee for two Half-Courses in the same Winter Session is £3, 3s.

B.—ENGLISH LITERATURE.

An Honours Half-Course of Twenty-Five Lectures on the Literature of the Eighteenth Century.

The work of this Class (which will meet on Monday, Wednesday, and Friday from 3 to 4, beginning on Wednesday, 9th January), will be a study of Literary Criticism from Dryden to Wordsworth, with special attention to the critical works prescribed for the Examination for the Honours Degree.

Summer Session, 1895.

C.—ENGLISH LITERATURE.

An Honours Half-Course of Twenty-Five Lectures on Elizabethan Literature.

The work of the Class (which will meet on Monday, Wednesday, and Friday from 12 to 1) will be a study of the Dramatic Literature of the Period, with special reference to the books prescribed for the Examination for the Honours Degree.

FRENCH LANGUAGE AND LITERATURE AND ROMANCE PHILOLOGY.

CHARLES SAROLEA, Ph.D., Litt.D., *Lecturer.*

Ordinary Graduation Class—3 to 4, five times a week.

This is the Class which qualifies for the Ordinary Degree of M.A.[1]

The work of the Class consists of—

1. Readings of some French author, such as Montaigne, Corneille, Racine, Molière, Boileau, Voltaire, Rousseau, and V. Hugo.

2. Lectures on French Literature or History.

3. French Prose Composition, or Translation of an unseen passage once a week, and a lecture on the passage when the exercises are returned.

4. Written examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

[1] See footnote 1, page 69.

5. Lectures on the philology and historical development of the French language.

The books to be read during the Winter Session 1894-95, and those to be recommended for private reading, will be announced at the beginning of the Session.

Honours Class—4 to 5.

The Honours French Class meets four days a week. It is intended to assist the studies of Candidates for University Scholarships and Graduation with Honours.

The work of the Class consists of—

1. Readings and explanations of Old French Texts, and of some of the more difficult Modern French Authors.

2. Lectures on French Literature or History, and on Romance Philology.

3. French Composition and Translation of unseen passages.

4. Occasional critical papers and essays.

5. Written examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

The books to be read during the Session 1894-95 will be announced at the beginning of the Session.

Summer Session, 1895.

The arrangements for the Summer Session 1895 will be announced later.

GERMAN LANGUAGE AND LITERATURE AND TEUTONIC PHILOLOGY.

OTTO SCHLAPP, *Lecturer.*

Ordinary Graduation Class—4 to 5, five times a week.

This is the Class which qualifies for the Ordinary Degree of M.A.[1]

The work of the Class consists of—

1. Readings of some German author, such as Lessing, Herder, Goethe, Schiller, Jean Paul F. Richter, Heine, Uhland, Gutzkow and Freytag.

[1] See footnote 1, page 69.

2. Lectures on German Literature or History.

3. German Prose Composition, or Translation of an unseen passage once a week, and a lecture on the passage when the exercises are returned.

4. Written examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and Historical Development of the German Language.

The books to be read during the Winter Session, 1894-95, and those to be recommended for private reading, will be announced at the beginning of the Session.

Honours Class—3 to 4.

The Honours German Class meets four days a week.

It is intended to assist the studies of Candidates for University Scholarships and Graduation with Honours.

The work of the Class consists of—

1. Readings and explanations of Middle High German Texts, and of some of the more difficult modern German Authors.

2. Lectures on German Literature or History.

3. German Composition and Translation of unseen passages.

4. Occasional critical papers and essays.

5. Written Examinations on the work done in Class, and on subjects prescribed for voluntary reading.

The books to be read during the Session, 1894-95, will be announced at the beginning of the Session.

Summer Session, 1895.

The arrangements for the Summer Session, 1895, will be announced later on.

SANSKRIT AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

A.—Sanskrit Language and Literature.

1. *Junior Class.*—Grammar and Exercises. Easy Sanskrit Texts (from Lanman's Reader). Easy translations from English into Sanskrit.

2. *Senior Class.*—Repetition of Grammar. Translations from English into Sanskrit. Sanskrit Texts, such as Kālidāsa's Raghuvanśa or Sakuntalā; Mricchakatikā; Manu's Institutes of Law; selected Hymns of the Rigveda (Lanman's Reader).

The Senior Sanskrit Class will be the Graduating Class in Sanskrit for the Ordinary Degree of Master of Arts; and any student who desires to attend this Class with a view to Graduation in Arts must previously pass an examination in accordance with Sect. IV., subs. 3 of the Ordinance.

The examination will include plain passages for translation from and into Sanskrit, and grammatical questions.

Those who propose, in a subsequent session, to take up Sanskrit as one of their graduation subjects will have an opportunity of attending the Junior Class in that language during the Session 1893-94.

B.—Comparative Philology.

During the Session 1894-95, the Professor will be prepared to deliver a course of Fifty Lectures on the Principles of Indo-European Philology and the history of Linguistic Studies, provided that a sufficient number of Students give in their names for this course. This course will qualify as one of the optional Honours Classes in connection with Classical Honours.

HEBREW AND ORIENTAL LANGUAGES.

PROFESSOR DOBIE.

A.—Hebrew.

Junior Class—1 to 2.

Grammar and Exercises (Davidson's Hebrew Grammar) from § 30. Translations into Hebrew Prose.

Reading and Explanation of easy Prose and Poetical Passages in the Old Testament. During Session 1894-95 the Book of Genesis, chaps. xxxvii. onwards, and selected Psalms will be read.

Oral and Monthly Written Examinations.

There is a Preparatory Class in Elementary Hebrew, which

meets during the SUMMER *Session, and for which the fee is* £1, 11*s.* 6*d.*

Senior Class—2 to 3.

Grammar (Davidson or Gesenius). Müller's Hebrew Syntax. Hebrew Prose Composition.

Reading and Explanation of portions of the Historical, Poetical, and Prophetic Books of the Old Testament. During Session 1894-95 Isaiah, chaps. i.-xiii. inclusive; Psalms, cvii.-cxxviii. inclusive, and the Book of Hosea will be read critically.

Discussion of *Critical and Historical* Questions connected with the Books read.

Tuesdays and Thursdays will be devoted to Hebrew Prose Composition and the Reading of non-Biblical unpointed texts; Oral and Written Examinations.

The Senior Hebrew Class will be the Graduating Class in Hebrew for the Ordinary Degree of Master of Arts; and any student who desires to attend this Class with a view to Graduation in Arts must previously pass an examination, in accordance with Sect IV. subs. 3 of the Ordinance.

The examination will include plain passages for translation from and into Hebrew, and grammatical questions.

Those who propose, in a subsequent Session, to take up Hebrew as one of their Graduation Subjects will have an opportunity of attending the Junior Class in that language during the Session 1894-95.

B.—ARABIC—3 to 4.

The work of this Class, which will meet on Tuesdays and Thursdays, will consist of Readings in Arnold's Arabic Chrestomathy, and Noeldeke's *Carmina Arabici*, and of Instruction in Arabic Composition.

In connection with this Class a Tutorial Class may be held by the Class Assistant, which will meet twice a week (Tuesdays and Thursdays) for elementary instruction in Grammar and Composition from Socin's Arabic Grammar. There is also a Preparatory Class in Elementary Arabic, which meets during the Summer Session, conducted by the Class Assistant under the superintendence of the Professor. The fee is £2, 2s.

C.—SYRIAC—3 to 4.

It is intended that this shall be an Advanced Class, to meet on Mondays, Wednesdays, and Fridays for the study of Roediger's *Chrestomathia Syriaca*, and for instruction in Syriac Composition.

CELTIC.

PROFESSOR MACKINNON.

CELTIC CLASS—The class meets daily, at 4 P.M.

1. Monday and Wednesday, Lecture on Celtic Literature and Philology. In Session 1894-95 the subject of lecture will be :—The Old Period of Gaelic Literature : Celtic Phonetics.
2. Tuesday, Thursday, and Friday, Reading and Exposition, mainly of old Gaelic Authors. Translation from English into Modern and Old Gaelic.

Text-Books.—Extracts for Reading, Part II. ; Keating's Three Shafts of Death ; Windisch's Irische Texte mit Wörterbuch ; Stewart's, O'Donovan's, and Windisch's Grammars.

Any student who desires to attend this Class with a view to Graduation in Arts must previously pass an examination in accordance with Sect. IV. subs. 3. of the Ordinance.

The examination will be in Scottish Gaelic, or Irish Gaelic, or Welsh ; and will include translations from and into English, with grammatical, literary, and easy philological questions.

The fee in the case of a Student who attends with a view to graduation is £3, 3s.

An Advanced Class will meet during the Winter Session of 1894-95, on Monday and Friday, at 3 P.M. The Class will read and transcribe Old Gaelic Texts.

Fee, £1, 1s.

A Gaelic Class for the use of Junior students will meet during the Winter Session 1894-95, Tuesday, Wednesday, and Thursday, at 3 P.M. The Class will read on Tuesday and Thursday,

Modern Scottish and Irish Gaelic, and commence the study of Old Gaelic ; Grammar and Exercises on Wednesday.

Text-Books.—Extracts for Reading, Parts I. and II. ; Stewart's and Joyce's Grammar ; Windisch's Grammar.

Fee for this class, £1, 1s.

II.—DEPARTMENT OF MENTAL PHILOSOPHY.

LOGIC AND METAPHYSICS.

PROFESSOR SETH.

Logic and Psychology—Junior Class—1 to 2.

The course in this class falls into three parts :—

(1) An outline of the main facts of Empirical Psychology, dealing more particularly with the facts and processes of cognition ; (2) The Elements of Logic, Deductive and Inductive ; (3) An introduction to the questions of philosophy, with special reference to the history of modern philosophy in England.

1. The Psychological Division of the course includes :—

The place of Psychology as a science, its scope and methods. The physiological mechanism and the relations of mind and organism : the senses, stimulus and sensation.

Analysis and classification of mental states. General conditions of consciousness. Attention : its nature, laws, and effects.

Perception : analysis of the elements involved. The perception of space and of objects in space ; the Berkeleian theory of vision.

Memory and Imagination. Distinction between percepts and images ; illusions, hallucinations, the phenomena of sleep and dreams. Memory as retention. Memory as recognition. Theories of memory. Association and its laws. The productive imagination.

Intellect. Distinction between images and concepts. Nominalism and Conceptualism. The formation of the concept ; thought and language.

The psychology of the Feelings and the Will in outline.

No text-book is prescribed for this part of the course, but frequent reference will be made to the leading works on the subject, and a manual such as Sully's "Outlines," Clark Murray's "Handbook," Höffding's "Outlines," James's "Textbook," or Baldwin's "Elements," may be usefully read in connection with the class lectures.

2. In the Logical division of the course Jevons's "Elementary Lessons in Logic" will be used to supplement the lectures, and references will be made to Keynes's "Formal Logic" and Mill's "Logic." The subjects treated will include :—

Definitions and Scope of Logic. The Laws of Thought.

Deductive Logic: Notions, Judgments, and Inferences. Exercises in Immediate Inference and in Syllogism. Definition and Division. Fallacies.

Theories of the Judgment and of the ultimate nature of Reasoning.

The relation of Deduction and Induction. The foundations of inductive reasoning: the uniformity of nature and universal causation. Observation and Experiment. The inductive methods. The function of hypothesis. Analogy. Probability.

3. The lectures under this head will deal with :—

The transition from mediæval to modern times and the beginnings of modern thought; Bacon as the spokesman of the new age and the pioneer of scientific method; Descartes as the founder of modern philosophy; the problem of Knowledge in Locke, Berkeley, and Hume.

Professor Fraser's "Selections from Berkeley" and certain chapters of Locke's "Essay" and Hume's "Enquiry" will be used in connection with the lectures as an introduction to the study of modern philosophy.

Metaphysics and History of Philosophy—Honours Class—3 to 4.

This Class is intended for those who have already attended the ordinary course, or who have otherwise some acquaintance with philosophy. The lectures deal in a more advanced way

with the chief systems of modern philosophy, special attention being devoted to Spinoza and Kant.

Lectures on Greek Philosophy are also delivered as a part of this Course by Mr Hardie, Assistant to the Professor and Lecturer in Logic and Metaphysics.

The Class constitutes an Honours Course of fifty Lectures, meeting on Monday and Thursday throughout the Session, and during a part of the Session at a separate hour for the Lectures on Greek Philosophy.

The "Bruce of Grangehill and Falkland Prize" is offered annually for competition. (*See* UNIVERSITY PRIZES.)

Summer Session, 1895.

R. P. HARDIE, M.A., *Lecturer.*

Honours Course in Ancient Philosophy.

This Class, which will constitute a half-course, qualifying for Honours in Mental Philosophy and in Classics, will meet at eleven o'clock on Mondays, Wednesdays, and Fridays, beginning on May 1.

The special subject of these Lectures will be announced later. It will probably be the earlier period of Greek Philosophy, including the Pre-Socratics, the Sophists, Socrates, and Plato.

MORAL PHILOSOPHY.

PROFESSOR CALDERWOOD.

Ordinary Class.

The following are the subjects embraced in the Course of Moral Philosophy :—

INTRODUCTION.—Province and Aim of Moral Philosophy.

1. PSYCHOLOGY OF ETHICS.—Knowledge of Moral Distinctions ; form and source of this knowledge ; Rival Theories — (*a.*) Intuitional Theory ; (*b.*) Evolution Theories, — Biologic (Spencer), Utilitarian (Mill) ; Dialectic (Hegel). Impulses to Action ; Restraints upon Action. The Will—its Nature and Laws of Exercise. Libertarian and Deterministic Theories. Moral Sentiments. Disorder of Moral Nature.

2. METAPHYSIC OF ETHICS.—The Being of God; His Moral Government. The Foundation of Virtue; the Relation of Divine Sovereignty to Free-Will; the Relation of Human Desire to Divine Sovereignty; the Origin of Evil; the Immortality of the Soul.

3. APPLIED ETHICS.—Man's Position in the World; Guidance of the Individual; Formation of Moral Character; Organisation of Society; Sociology; Natural Religion.

4. THE HISTORY OF MORAL PHILOSOPHY.—The Rise of Philosophy; Distinction of Moral from Intellectual Philosophy; Development of Systems of Moral Philosophy in Ancient and Modern Times.

The Course includes lectures, oral and written examinations, and essays.

Text-Books.—The Professor's "Handbook of Moral Philosophy;" Kant's "Groundwork of the Metaphysic of Ethics;" Schwegler's "History of Philosophy."

Books recommended for reference.—Price's "Principal Questions in Morals," Butler's "Sermons on Human Nature," Reid's "Active Powers," Mill's "Utilitarianism," Herbert Spencer's "Data of Ethics," Wallace's "Logic of Hegel," Hegel's "Philosophy of the State," Green's "Prolegomena of Ethics," Sidgwick's "Methods of Ethics," Calderwood's "Vocabulary of Philosophy," Ueberweg's "History of Philosophy."

Honours Class—3 to 4 on Wednesday and Friday.

The History of Moral Philosophy from the time of Socrates.

Subjects of study.—The Sophists, The Teaching of Socrates as presented in Xenophon's "Memorabilia," and in Plato's "Protagoras" and "Apologia." The Ideal Philosophy of Plato as developed in the "Republic," and in other Dialogues. Aristotle's "Nicom. Ethics." The rise of Modern Philosophy; the "Method and Meditations" of Des Cartes; Spinoza's "Ethics." The Scepticism of Hume, and the fresh start of Philosophy subsequently. The Scottish Philosophy; Kant's Ethical System; Fichte's Practical Philosophy; Hegel's Ethics; Schopenhauer's Pes-

simism, in its Ethical Aspects; Later developments of the Ethics of Evolution.

Books recommended.—Zeller's "Socrates and the Socratic Schools," Plato's "Republic," Jowett's Translation, Sir Alexander Grant's "Ethics of Aristotle," Zeller's "Stoics, Epicureans, and Sceptics"; Kant's "Ethics," Semple's or Abbott's Hegel's Ethics in Morris's "Hegel's Philosophy of the State and of History," Grigg's Philosophical Classics; Green's "Prolegomena to Ethics"; Utilitarianism, as presented in Mill's "Utilitarianism;" in Spencer's "Data of Ethics" and "Justice;" and in Sidgwick's "Methods of Ethics."

Summer Session, 1895.

C. M. DOUGLAS, M.A., D.Sc., *Lecturer.*

Honours Course in Psychology.

This Class, which will constitute a half-course qualifying for Honours in Mental Philosophy, will meet at twelve o'clock on Mondays, Wednesdays, and Fridays, beginning on 2nd May.

Attention will mainly be directed to such principles and problems as are of ethical and philosophical interest; results of experimental research will be specially kept in view.

No text-book will be followed, but frequent references will be given to James' "Principles of Psychology," Baldwin's "Hand-book of Psychology," Sully's "Human Mind," and other books.

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

PROFESSOR NICHOLSON.

The course, extending to 100 meetings of the Class, qualifies for Graduation in Arts.

The Lectures will follow the order of arrangement of John Stuart Mill's *Principles of Political Economy.*

1. METHODS USED IN ECONOMIC SCIENCE.—Analysis of Fundamental Conceptions, Wealth, Capital, &c.

2. PRODUCTION OF WEALTH.—Division of Labour—Accumulation of Capital—Growth of Population.

3. DISTRIBUTION OF WEALTH.—Socialism—Land Tenure—Wages—Profits—Rent—Trade Unions.

4. VALUE.—Money—Inflations and Depressions of Trade—Commercial Crises—Banking—Free Trade—Foreign Exchanges—Stock Exchange.

5. ECONOMIC PROGRESS.—Effects of Progress on Value, and on the relative Distribution of Wealth.

6. PRINCIPLES OF THE LIMITS OF GOVERNMENT INTERFERENCE WITH INDUSTRY.—Direct and Indirect Taxation—Incidence of Taxes—National Debts—Contracts—Joint Stock Companies—Patents—Copyrights.

Although Mill will be used as text-book, references will be constantly given to previous writers, *e.g.*, Adam Smith and Ricardo, as well as to more recent writers, *e.g.*, Sidgwick, Walker, Jevons, Marshall, Bagehot, &c.

History.—One lecture a-week will be devoted to the Economic History of England. This course is not intended to give the history of the Theory of Political Economy, but to trace the principal facts and institutions in the material and social life of the English people from an economic standpoint, *e.g.*, Gilds, Feudal System, Land Tenures, Ecclesiastical Influence, Serfdom and the Poor, Forms and Amount of Wealth, Foreign and Internal Trade, &c.

THEORY, ART, AND HISTORY OF EDUCATION.

PROFESSOR S. S. LAURIE.

THEORY, OR SCIENCE, OF EDUCATION.

A.—THE END OF EDUCATION.

The Possibilities and Limits of Education. The End of Education. The relation of the School to this End. The Educative Process generally, whereby the End is attained.

Materials or Subjects of Instruction conducive to the attain-

ment of the End, and the carrying out of the Process. Definition of subjects in their school sense. Relative value of subjects for instruction and discipline respectively. Distinction of Real and Formal, Humanistic and Naturalistic.

Material conditions of the life and growth of Mind, i.e., *Physiology and its Educational Lessons.*

B.—Science of Education, *i.e.*,

Applied Psychology and Ethics.—I. The Psychology of Intelligence in its educational relations fully treated. Periods of Mental Growth. Methodology or the Principles and Rules of the Art of Instruction which the Science yields.

II. Psychology of the Ethical Nature of Man in its educational relations. The Real of Morality (Instruction and Training); the Formal in Morality (Discipline to Duty).

C.—Art of Education.

I. *Intellectual.*

Rules of the Art, i.e., *Method in Intellectual Instruction, Training, and Discipline.*—Analytic exposition of the Rules, showing their derivation from the Science of education. Application of the Rules to teaching of—

(1.) Real-Naturalistic subjects, *e.g.* Object-lessons, Elementary Science, Geography, &c.
(2.) Real-Humanistic subjects, *e.g.* Language, Literature, Economics, History, &c.
(3.) Formal subjects, *e.g.* Arithmetic, Geometry, Grammar.

II. *Ethical.*

Rules of the Art, i.e., *Method, in Moral Training and Discipline.* Motives. The Authority of the Teacher. The meaning of Authority. The nature and conditions of its exercise. Punishments, Rewards, &c., &c.

The Organisation of a School. Organisation of a State-system. The ideas governing Primary, Secondary, and University Instruction respectively. The Manual and the Technical

in Instruction. School appliances. The Manipulation of a Class. The Teacher.

D.—History of Education and of Theories.

Pre-Christian Education — 1. Education in Ancient Egypt. 2. Education among the Semitic Races. 3. Education of the Hindu Races. 4. The Education of the Ancient Persians. 5. Education among the Hellenic Races. The educational views of Plato and Aristotle. 6. Education among the Romans. 7. Detailed analysis and exposition of the Institutions of Quintilian. 8. Plutarch.

Christian Education—1. The decay of the Romano-Hellenic, and the rise of Christian, Education. 2. The Cathedral and Monastery Schools. 3. The Rise of Universities.

The Renaissance—1. Humanism as represented by Rabelais and Montaigne, Erasmus, Colet, Luther, Melancthon, John Sturm, and Roger Ascham. Exposition of "The Schole-master."

The Modern Movement — 1. Lord Bacon. 2. Ratichius. 3. Comenius. 4. Milton. 5. Analysis and exposition of John Locke's "Thoughts on Education," and the "Conduct of the Human Understanding." 6. Rousseau, Basedow, and Campe. 7. Pestalozzi, Jacotot, Fröbel, Jean Paul Richter, Diesterweg, Dr Arnold. 8. Dr Andrew Bell and Joseph Lancaster. 9. Herbert Spencer and contemporary Realism.

A short course of Lectures will be given on Education in China if time permit.

Note.—The books to be thoroughly studied during the Session, apart from the Lectures, are *Comenius' Didactic*, and the Professor's book on "Language and Linguistic Method." The "Institutes of Education" should also be in the hands of the student. *Four written Examinations will be held during the Session, and Three Essays on educational principles or method called for.*

Practice in Teaching.—Arrangements are made at the Training Colleges for securing training in the *Practice of Teaching* to the extent of the requirements of Government

and of the University Schoolmaster's Diploma. Fee for this, £1, 10s. 6d. Facilities are also given for visiting one or two of the principal schools, and acquiring a knowledge of their organization.

PHILOSOPHY OF LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

A course of forty lectures on the Philosophy of Law will be delivered from the Chair of Public Law, commencing on Tuesday, 16th October 1894, at three o'clock, which will qualify as a half-course for graduation. The Class will meet five days a week. The course will be divided into two parts :—

(1.) The Science of Natural Law.

Relations of the Science of Natural Law to Ethics explained. Historical sketch of the Science, and of the conception of Justice. (*a*) The Ancient Period. (*b*) Christianity and the Middle Ages. (*c*) The Modern Period. Examination of the Ethical aspects of the State, and the institutions of society. Marriage, the Family, Property, Punishment, &c.

Books of reference. — Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Lerminier, Philosophie de Droit; Bluntschli, The Theory of that State.

(2.) The Science of Positive Law.

The Province of Jurisprudence determined. Examination of the Sources of Positive Law. Classification of Rights.

Books of reference.—The Student's Austin; Holland, Jurisprudence. Sir Henry Maine's Works.

GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—Emeritus Professor CAMPBELL FRASER, Hon. D.C.L. (Oxford) and LL.D. (Glasgow and Edinburgh).

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term."

It is proposed that the first five Lectures of the course (1894-95) should be delivered in November and December 1894, and the remaining five Lectures in January and February 1895.

According to the Trust Deed, "the lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind ; they may be of any denomination whatever, or of no denomination at all ; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion ; or they may be so-called sceptics or agnostics or free-thinkers ;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

III.—DEPARTMENT OF SCIENCE.

MATHEMATICS.

PROFESSOR CHRYSTAL.

First Class—This Class is taught by the Assistant, under the supervision of the Professor. 12 to 1.

Plane Geometry equivalent to Euclid, Books i., ii., iii., iv., and vi. (*Syllabus of Plane Geometry*, prepared by the Association for the Improvement of Geometrical Teaching forms the text of the lectures); Solid Geometry, equivalent to Euclid, Book xi.; Modern Geometry ; and Elementary Algebra.

Second Class—9 to 10.

This class is the qualifying class for the Ordinary Degree of M.A. and for the First Science Examination.[1]

Algebra, including the elements of the Theory of Equations, and of Determinants, the Theory of Limits and the Elements of Curve Tracing; Plane Trigonometry; Conic Sections, treated geometrically and analytically; Modern Geometry.

Intermediate Honours Class—Monday, Wednesday, Friday, 11 to 12.

The work of this course will be suitable for Engineers and other Science Students who do not wish to make a specialty of Pure Mathematics.

The elementary parts of the Differential and Integral Calculus, and of the Calculus of Finite Differences. Analytical Geometry, Plane, and Elementary Solid. It is assumed that the Student has acquired a knowledge of the Theory of Equations, and of the elements of the Theory of Determinants before he joins this Class.

Advanced Honours Class—Monday, Wednesday, Friday, 10 to 11.

The subjects of the Advanced Course are the higher parts of the Differential and Integral Calculus; Differential Equations; Definite Integrals with special reference to Fourier's Theorem; Functions of Laplace and Bessel; Higher Plane Curves; Analytical Geometry of Three Dimensions.

Additional lectures on Quaternions, Projective Geometry, and other special subjects are given occasionally.

Tutorial Classes.—In addition to the ordinary class lectures occasional lectures are given by the Class Assistant. The time is devoted to the repetition of parts of the class lectures and to the working of examples.

Home Exercises are prescribed weekly in all the classes.

Written Examinations on the class lectures are held during the Session. The class honours are determined solely by these examinations.

[1] See footnote 7, page 70.

Text-Books.—As a rule *special* text-books are not prescribed; but the student is recommended to select from the following list:—

Geometry.—Wilson's Elementary Geometry, or the Text-Books of the Society for the Improvement of Geometrical Teaching, and one or more of the following, for the sake of the exercises they contain:—Mackay's, Todhunter's, Nixon's, or Casey's edition of Euclid's Elements, and Casey's Sequel to Euclid.*[1]

Algebra.—Chrystal, or Todhunter, Gross, Chambers's Mathematical Tables.

Solid Geometry and Conic Sections.—Taylor (smaller work) or Taylor* (larger work).

Trigonometry.—Walmsley, Todhunter, or Lock (M'Lelland and Preston* for Spherical Trigonometry).

Analytical Geometry.—Smith's Analytical Conic Sections; and Dyer's Exercises in Analytical Geometry. Students intending to take the Third Class are recommended to get Salmon's Conic Sections, Salmon's Higher Plane Curves,* and Salmon's Geometry of Three Dimensions,* or, instead of the last, Smith's Solid Geometry.

Projective Geometry.—Cremona's Elements of Projective Geometry translated by Leudesdorf, or Henrici's Article on *Geometry*, "Encyclopædia Britannica" (9th edition).

Higher Algebra and Theory of Equations, etc.—Burnside and Panton's, or Todhunter's Theory of Equations; Thomson's Introduction to Determinants, and Muir* or Scott*; and Salmon's Higher Algebra for those who mean to read for Mathematical Honours.

Differential and Integral Calculus.—Williamson's Treatises; Forsyth's Differential Equations*; Frost's Curve Tracing; Boole's Finite Differences.*

[1] Works marked with asterisks are recommended to those only who make Mathematics a specialty.

Summer Session, 1895.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

1. *Lower Senior*—11 to 12.

This Class qualifies for Graduation in Arts and Science as a First Half-Course[1 2] in Mathematics. The work consists of Algebra and Plane Trigonometry, corresponding to the First Half of the Winter Graduation Course.

2. *Higher Senior*—12 to 1.

This Class qualifies for Graduation as a Second Half-Course[1 2] if taken *after any* First Half-Course in Mathematics.

Suitable also for Students reading for the more advanced part of the Winter Graduation Course.

The work consists of Algebra and the elementary treatment of the Conic Sections, Geometrical and Analytical.

In each Class weekly exercises are prescribed, and two written examinations are held.

3. *Advanced Class*—10 to 11.

This Class qualifies as a First Half-Course for Graduation with Honours in Mathematics and Natural Philosophy.

The work consists of Determinants and the Theory of Equations (which are not treated in the Winter Advanced Courses), Differential and Integral Calculus, and Analytical Geometry.

Tutorial Classes.

The above Classes also serve for Tutorial Classes.

The Junior Class of Mathematics will not be continued in the Summer unless a strong demand for it be made.

Weekly exercises are prescribed on the work done in each class.

For text-books, see pages 102 and 103.

[1] Attendance on the first half of the Winter Graduation Course up to Christmas can now be made to qualify as a First Half-Course in Mathematics, and attendance on the second half of the Winter Course from Christmas to the end of the Session as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course of Instruction for Graduation.

[2] See footnote 7, page 70.

NATURAL PHILOSOPHY.

PROFESSOR TAIT.

Ordinary Class.

(Qualifying for Ordinary M.A. and for First Science Examination.)[1]

The subjects embraced in the Course of Natural Philosophy are the following :—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

2. Abstract Dynamics—including Kinematics, Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with their applications.

3. Sound, and Wave-propagation in general.

4. Heat, with its application to the Steam-Engine, &c.

5. Light (Geometrical and Physical Optics).

6. Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto-Electricity, Electro-Dynamics, and Magnetism, with their practical applications to the Telegraph, &c.

7. Conservation of Energy.

8. Plane and Physical Astronomy.

9. Meteorology.

Properties of Matter, Abstract Dynamics, and Conservation of Energy, together with two or three others of the above divisions of the subject, are treated in detail every Session, the remainder being necessarily discussed in a more superficial manner, as it is impossible to enter at length into all in the course of a single Session.

It is intended that in Session 1894-95, in addition to Sections 1, 2, and 7, Sections 5 and 6 shall form the more detailed part of the Course.

The whole Class is examined at intervals during the Session upon the subjects already treated in the Lectures ; and a prize is given for the best answering. In these examinations, which are to be regarded as an essential part of the class-work, no

[1] See footnote 7, page 70.

Mathematics are requisite, except the most elementary portions of Arithmetic, Algebra, and Geometry.

In the months of January and March there are special Examinations upon prescribed subjects, applying mainly to those students who are competing for Class Prizes; and, on these two occasions only, the Class is divided into two parts—the division depending mainly upon the students' proficiency in Mathematics. In the Lower Division, the elements of Algebra and Geometry alone are required; in the Higher Division, Algebra, Geometry, and the Geometry of the Conic Sections are necessary.

The Prizes in each division of the Class are determined by adding the marks obtained in the two sets of Examinations above described. No Student who has obtained a Prize in either Division of the Class can be allowed to compete, in a subsequent Session, for a Prize in the same or in a lower Division.

The Text-Book for the Dynamical part of the Course will be Thomson and Tait's "Elements of Natural Philosophy" (Pitt Press, Cambridge). Of this, however, only the more elementary portions will be required for the Lower Division. For the remainder of the subject the student may consult some of the following books: — Clerk-Maxwell's "Matter and Motion," Jenkin's "Electricity," Balfour Stewart's "Lessons in Physics," Tait's "Properties of Matter," "Heat," and "Light."

The special Examinations in January 1895 will be on the following subjects:

Higher Division.

Newton's "Three Sections" (Goodwin's "Course of Mathematics," Frost's "Newton," or any good edition of the *Principia*).

Lower Division.

Herschel's "Astronomy," in Lardner's Cyclopædia, omitting the chapter on Perturbations. A series of explanatory lectures will be given by the Class-Assistant before this Examination.

The subjects for the March Examinations in both Divisions

will be Kinematics and Dynamics. The range will depend upon the progress which the Class has made in these subjects.

Subject of Voluntary Essay to be given in before the last week of the Session :—" In what sense is there, as Laplace and others have asserted, a very intense molecular pressure in liquids ?"

Honours Classes.

(For the benefit of Engineering and Science Students, and of Arts Students wishing to Graduate with Honours in the Department of Mathematics.)

For the Programme of the Advanced Science Class, see Courses in Science.

The Intermediate Course of at least Fifty Lectures will be given by the Lecturer on Applied Mathematics. It will take the place of what has hitherto been called the Advanced Class, but it will be more elementary.

The hour of meeting, and other arrangements for the Advanced Course, cannot be fixed until it is known what number of students will present themselves, and what time they have at their disposal. The subjects commenced in the Intermediate Course will here be further developed, and some one or more special branches of Applied Mathematics [such as the Kinetic Theory of Gases, the Lunar Theory, the Undulatory Theory, Vortex Motion, &c.] will be fully treated.

One of the text-books in each of these Courses is the article *Mechanics*, in the last edition of the "Encyc. Brit."

SUMMER CLASS OF PHYSICS, SPECIALLY FOR MEDICAL STUDENTS.

For particulars, see Courses in Faculty of Medicine.

PHYSICAL LABORATORY.

This has been established with the view of affording Students a practical knowledge of the construction of, and manner of using physical apparatus, and with the mode of conducting experi-

mental inquiries. The Laboratory is open for five or six hours daily during the Winter and Summer Sessions, under the personal superintendence of the Professor and his Class-Assistant. Fee, £6, 6s. for the Winter Session. It is hoped that, with the valuable collection of apparatus in the Museum, results of real use to science may be obtained.

A practical class, for the instruction of beginners in the elementary processes of measuring Time, Mass, Length, Angle, Force, &c., will be formed in the Winter and also in the Summer Sessions. The course, in each case, will extend over about three months. The fee is £2, 2s. The Professor reserves to himself the right of admitting *free*, to general Laboratory work, such matriculated students of the practical class as may show special diligence and aptitude.

APPLIED MATHEMATICS.

(*Electricity and Magnetism.*)

C. G. KNOTT, D.Sc., *Lecturer.*

A Course of Lectures on the Theory of Electricity and Magnetism will be given during the Summer Session of 1895.

Fee, £2, 2s.

The following, amongst other subjects, will be treated :— Electric Field, Potential, Induction, and Distribution of Charge ; Flow of Electricity in Networks, Sheets, and other conductors ; Thermal Relations, reversible and irreversible ; Magnetic and Electromagnetic Field and Potential ; Induced Magnetism ; Induced Currents and Electrical Oscillations.

A knowledge of Dynamics will be assumed, and the ordinary processes of the Differential Calculus will be used. Professor Chrystal's Articles on *Electricity* and *Magnetism* ("Ency. Brit.") are recommended as Text-Books.

DYNAMICS.

For Synopsis of this Course, see under Science.

Summer Session, 1895.

Advanced Experimental Physics.

W. PEDDIE, D.Sc., *Lecturer.*

In this Class such subjects as are treated mathematically in the Winter Advanced Honours Course of Natural Philosophy will be treated fully from the experimental point of view. The Course is also intended to suit the requirements of undergraduates in Experimental Science. It is proposed to treat experimentally the advanced parts of Light, Electricity, Magnetism, &c. In connection with the Undulatory Theory, the following subjects will be discussed:—Reflection, refraction, and interference of ordinary and of polarised light; conical refraction; diffraction; electro- and magneto-optics; and the various optical phenomena of crystalline substances. In Electricity and Magnetism such subjects as the discharge of electricity through gases; the screening effect of conducting sheets, and other phenomena associated with rapidly alternating electromotive forces; electromagnetic undulations; magnetic hysteresis, &c., will be treated. The experimental investigation of reciprocally related physical phenomena will be specially illustrated from all branches of physics; and, on the dynamical side, special attention will be devoted to the realisation of dynamical systems illustrative of physical phenomena.

Tutorial Class.

NATURAL PHILOSOPHY (*Advanced Honours*).

The work in this Class will correspond as closely as possible to the work of the Winter Advanced Honours Course—Undulatory Theory, &c., being fully treated. The Class is intended for Students preparing for the above Winter Course, or for the Advanced Honours Examination.

ASTRONOMY.

PROFESSOR COPELAND.

(*Eighty Lectures and Twenty Meetings of two hours each for Observatory work, which must not be on the same days as the Lectures.*)

Lectures on Practical Astronomy, preceded by an introductory address, will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays. Instruction in the use of portable and fixed astronomical instruments will be given at the Royal Observatory on Calton Hill, on Fridays, beginning at 8 P.M. Attendance at the evening demonstrations is obligatory on all who take Astronomy as a qualifying course for graduation. The Lectures will be divided into two courses, the first of which will embrace the theory and use of Astronomical Instruments, together with as much General Astronomy as is requisite to guide the Student in making observations in the field as well as in an observatory. The Second Course will treat of the utilization of observations of Comets, etc., in the computation of orbits and ephemerides.

In the event of a considerable increase in the number of Students, it may be necessary to divide the class into two groups for the practical work at the Royal Observatory, where the space is very limited.

CHEMISTRY.

PROFESSOR CRUM BROWN.

This Course is the same as that provided for Students of Medicine and Science. It embraces One Hundred Lectures and Fifty Meetings for Practical Work in the Practical Chemistry Class-Room.

ZOOLOGY.

PROFESSOR EWART.

The Course is the same as that provided for Students of Medicine and of Science. It embraces Fifty Lectures and Fifty hours for Practical Work.

BOTANY.

PROFESSOR BAYLEY BALFOUR.

The Course is the same as that for Students of Medicine and of Science. It embraces Fifty Lectures and Fifty hours for Practical Work.

GEOLOGY, INCLUDING MINERALOGY.

PROFESSOR JAMES GEIKIE.

For Synopsis of this Course, see under Pure Science.

IV.—DEPARTMENT OF HISTORY AND LAW.

HISTORY.

(PROFESSORS KIRKPATRICK AND PROTHERO, TAYLOR, BALDWIN BROWN, AND MACKINTOSH.)

A. ORDINARY COURSES.

I. PROFESSOR PROTHERO'S CLASS.

Twelve noon.

The Course, extending to a hundred meetings of the Class, qualifies for Graduation in Arts.

The subject to be treated of, until further notice, is the HISTORY OF THE BRITISH EMPIRE, divided into the following Periods or Chapters, of which a fuller Syllabus may be obtained on application to the Professor or to the Clerks of Senatus :—

Introductory.—1. Roman Period (to A.D. 449).—2. Conquest and Unification (449-839). — 3. Anglo-Saxons and Danes (839-1066).—4. Normans (1066-1154).—5. Organisation (Plantagenets : 1154-99).—6. The Great Charter and the Barons' Wars (Plantagenets : 1199-1272).—7. Institution of Parliament (Plantagenets : 1272-1327).—8. War, Plague, Revolution (Plantagenets : 1327-99).—9. Constitutional Rule and Foreign War (Lancastrians : 1399-1453).—10. Wars of the Roses (Lancastrians and Yorkists : 1453-85).—11. Restoration of Order (Tudors : 1485-1509.—12. Despotism in Church and State (Tudors : 1509-47.—13. Puritan Reformation and Romanist Reaction

(Tudors : 1547-58).—14. The Elizabethan Settlement (Tudors : 1558-1603).—15. Crown and Parliament ; Colonisation (Stuarts : 1603-40).—16. The Long Parliament and the Rebellion (1640-49).—17. Commonwealth and Protectorate (1649-60).—18. Restoration and Revolution (Stuarts : 1660-89).—19. The New Settlement, Union with Scotland (1689-1714).—20. Rise of Cabinet Government ; Expansion of the Empire (Hanoverian : 1714-60).—21. The "King's Friends" and the American War (Hanoverian : 1760-84).—22. The Revolutionary and Napoleonic Wars ; Union with Ireland, Reaction (1784-1820). — 23. Reforms, Civil and Religious (1820-37).—24. Free Trade, Education, Progress (1837-94).

WORK OF THE CLASS.—1. Lecture daily, except Saturdays, chiefly on the political, social, religious, and literary evolution of England, with parallel references to Scotland and Ireland, America, India, &c. The hours on Tuesdays and Thursdays will be devoted to the examination of original sources, the elucidation of special points, political geography, &c.

2. Professor Kirkpatrick's Class Library may be consulted by students of History on Mondays, Tuesdays, Thursdays, and Fridays from 10.30 to 1.30.

3. Four Class Examinations will be held, and two Essays set, during the Winter Session. Honours will be awarded to candidates distinguished both in the examinations and in the essays.

Books recommended.—For elementary purposes, S. R. Gardiner's "Student's History of England," or J. R. Green's "Short History of the English People," or J. F. Bright's "History of England." For wider study see the lists given by Mr Gardiner and Mr Green : the "Introduction to English History," by Gardiner and Mullinger ; and also the catalogue of the Class Library.

II. PROFESSOR KIRKPATRICK'S CLASS.

This Course is divided into two half-courses, the first treating of the Constitutional History of England, the second treating of that of the United States of America, of France, Germany, Switzerland, etc. (see under Faculty of Law).

III. PROFESSOR BALDWIN BROWN'S CLASS.
(See p. 114).

IV. PROFESSOR TAYLOR'S CLASS.
(See p. 447).

V. PROFESSOR MACKINTOSH'S CLASS.
(See p. 116).

B. GRADUATION IN HISTORY WITH HONOURS.

Candidates for Honours in History may take any of the following as *Ordinary Courses* in History, under Section xi. (3) of the Arts Ordinance :—

(*a*) By Professor Prothero (on British History); (*b*) by Professor Kirkpatrick on Constitutional History; (*c*) by Professor Taylor on Ecclesiastical History; (*d*) by Professor Baldwin Brown on History of Art; (*e*) by Professor Mackintosh, half-course on History of Roman Law, and by Professor Kirkpatrick (half of his course on Constitutional History).

The following *Honours Courses* are at present available :—

(*a*) By Professor Kirkpatrick on "Wycliffe: his Times and Influence"; (*b*) by Professor Prothero on "The Creation of the British Empire"; (*c*) by Professor Baldwin Brown on Classical Archæology.

Note.—Mr David P. Heatley, as Assistant to Professor Kirkpatrick, will lecture next Winter Session on "The King and the Crown: or Personal and Official Kingship in English History." This Advanced Course of twenty lectures is auxiliary to the Courses delivered by the Professors of History, and may be attended by their Students without fee.

Syllabuses of the above Courses are obtainable on application at the Matriculation Office, or from the respective Professors.

HONOURS COURSES.

I. *Wycliffe: His Times and his Influence on Society and the Constitution.*

PROFESSOR KIRKPATRICK.

I. Introductory. II. Outline of Wycliffe's career. III. England in Wycliffe's time. IV. (1) Doctrines of Wycliffe; (2)

The Great Schism. V. Illustrations of Wycliffe's doctrines from his works. VI. Survival of his influence, political and other.

Fuller Syllabus on application to the Professor, or at the Matriculation Office.

Books recommended.—Wycliffe's Works: "Select English Works," ed. by Thomas Arnold, 3 vols., 1869-71; "English Works of Wyclif hitherto unprinted," ed. by F. D. Matthew, 1880; "Johann von Wiclif und die Vorgeschichte der Reformation" (by Dr G. V. Lechler, 2 vols., Leipzig, 1873) (or translation by Lorimer); "Fasciculi Zizaniorum," ed. by W. W. Shirley (Rolls Series, 1858); "Political Songs," ed. by Wright (Rolls Series); "Chronicon Angliae," ed. by E. M. Thompson, 1874; Works of Langland and Chaucer; Walsingham's "Historia Anglicana," ed. by Riley (Rolls Series); Loserth's "Wiclif und Hus" (or translation); Palacky's "Documenta Magistri Jo. Hus vitam illustrantia (1403-18); Wycliffe's "Wicket" (Oxford, 1612 and 1828) and "Trialogus" (ed. by Lechler; Clar. Press); Creighton's "Papacy during the Reformation" (vol. I. 1882), &c.

These Lectures, fifty in number, qualifying for graduation in Arts with Honours in History, will be given on Mondays, Tuesdays, and Thursdays, at 2 P.M., beginning on Thursday, 18th October 1894 (but, after Christmas, on Tuesdays and Thursdays only). Students attending them will have free access to the Professor's Class Library, superintended by his Assistant (Mr David P. Heatley, late Vans Dunlop Scholar in History), daily (except Wednesdays and Saturdays) from 10.30 to 1.30. They will also be entitled to attend Mr Heatley's advanced course on "The King and the Crown," on Wednesdays, at 11, without additional fee.

II *The Creation of the British Empire*, 1688-1815.

10 A.M.

PROFESSOR PROTHERO.

I. Introductory sketch of European colonisation and world-commerce before 1688. II. The great colonising and commercial powers in 1688. III. The European results of the English

Revolution. IV. The War of the Spanish Succession. V. Walpole and peaceful trade. VI. The War of the Austrian Succession and the Seven Years' War; Canada and India. VII. The quarrel with America. VIII. Pitt as a peace-minister. IX. The Revolutionary War. X. The Struggle with Napoleon: results.

Books recommended.—Lodge, "Modern Europe," (Murray, 1885); Macaulay, "History of England"; Burton, "Reign of Queen Anne"; Lecky, "History of England"; Seeley, "Expansion of England" (Macmillan, 1883); Levy, History of British Commerce" (Murray, 1872); Cunningham, "Growth of English Industry and Commerce," Vol. ii. (Cambridge, 1892); Koch et Schoell, "Histoire Abrégée des Traités de Paix"; Bancroft, "History of the United States"; Parkman, "Montcalm and Wolfe"; Lyall, "British Dominion in India" (Murray, 1893); Fyffe, "History of Modern Europe," Vol. i.; Mahan, "Influence of the Sea-Power upon History," &c. (Sampson Low, 1889-93); Atlases of Historical Geography, by Spruner, Droysen, Wolff, Colbeck, or Gardiner.

This Course of fifty Lectures also qualifies for graduation in Arts with Honours in History. The Lectures will be given on Wednesdays and Fridays at 10 A.M., beginning on Friday, 19th October 1894 (but, after Christmas, on Mondays also). Students in this class may also attend Mr Heatley's course on "The King and the Crown," and may read in Professor Kirkpatrick's Class Library (see above).

III. *Archæology, History of Ancient Art* (See p. 116.)

FINE ART.

PROFESSOR BALDWIN BROWN.

This Course will extend to One Hundred meetings of the Class, and will qualify as an alternative Course for the M.A. degree.

The Lectures are designed :—

1. To bring before students, by means of critical descriptions

and illustrations, the chief ancient and modern works of Architecture, Sculpture, Painting, and the Decorative or Industrial Arts.

2. To show how these works are connected in their origin and use with the national and social life of successive epochs; and conversely, how the study of Artistic Monuments illustrates Classical and Biblical literature, and bears on historical investigation in general.

3. To explain as far as practicable the technicalities of the various Arts, and to open up those aspects of Art which present themselves naturally to the artist, but are sometimes overlooked by the literary student.

The course practically divides itself into two, about half the meetings being devoted to the more purely historical, half to the artistic and technical aspects of the subject.

On the historical side :—

The characteristics of different styles and schools of Art will be broadly indicated, but this part of the subject, which can be studied from books, will not be dwelt upon at length. In each Session, however, special attention will be paid to some one important phase of Art. That selected for study in Session 1894-95 is the Italian Schools of Painting and Sculpture.

On the artistic side :—

Particular stress is laid on the explanation of different materials and technical processes, as upon these largely depend the particular forms in which beauty is realised in the various works of human hands.

The following are the arrangements for the work of the Class :—

There are Lectures daily at 3 P.M., but the meeting on Friday is of a less formal kind, and affords opportunity for the discussion of special points of interest or difficulty.

Class examinations are held, and a series of eight Essays are set for the Cousin Prize (£15).

The Class Library and Reading-Room will be open to mem-

bers of the Class, according to arrangements to be afterwards adjusted.

Visits to Museums, &c., take place from time to time on Saturdays.

In connection with the Class Library, students have access to collections of examples in the form of casts, photographs, &c.

The Professor's manual, "The Fine Arts," is used, so far as it goes, as a text-book. Other books to be read by those taking the Course for Graduation are indicated on page 82.

CLASSICAL ARCHÆOLOGY FOR CLASSICAL HONOURS.

A Course of Fifty Lectures on Classical Archæology, qualifying as an optional subject for Honours in Classics, will also be given. For details, see page 81.

This Course also qualifies as an alternative subject for Honours in History. Compare pp. 150B, 151.

CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK.

See under Faculty of Law.

ROMAN LAW.

PROFESSOR MACKINTOSH.

The Course of Lectures qualifying for Graduation in Arts to be delivered by the Professor of Roman Law next Winter Session will extend to eighty-eight meetings of the Class.

The Course will be divided into two distinct parts. The first half of the Course (extending to not less than forty-four meetings of the Class) will deal with the Early Institutions, the Constitutional machinery, the sources and development of the law, codification, and other topics belonging to the external history and the general part of the civil law. It is intended to serve as a historical introduction to the study of the special departments. This half of the Course will terminate at the commencement

of the Christmas Vacation, and it qualifies as a Half-Course for Graduation in Arts.

The second half of the Course will be devoted to a systematic exposition, in detail, of the law relating to persons and the family, and to property and real rights.

The fee for the Half-Course is £2, 2s., and for the full Course, £3, 3s.

Text-Books.—The Institutes of Gaius and of Justinian, and Selected Titles from the Digest.

In connection with the historical lectures students are referred to Muirhead's "Historical Introduction to the Private Law of Rome," or to Ortolan's "Histoire de la Législation Romaine" (of which there is an English translation).

PUBLIC INTERNATIONAL LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

A course of Forty Lectures on Public International Law will be delivered from the Chair of Public Law, commencing on 8th January 1895 at three o'clock.

The Class will meet *four* days a week.

The Course will include—

1. An historical retrospect.

2. Some account of the science and literature of Public International Law.

3. An examination of the sources, and a critical exposition of the leading doctrines, of Public International Law.

Students are recommended to consult Wheaton's History of the Law of Nations, Introduction; Nys's Le Droit de la Guerre et les Précurseurs de Grotius; Phillimore's International Law, Vol. I.; Lawrence's Essays on Modern International Law; Hall's International Law. Vide under Faculty of Law.

Graduation in Arts.[1]

A.—REGULATIONS OF THE UNIVERSITY OF EDINBURGH RELATIVE TO THE DEGREE OF MASTER OF ARTS (M.A.),[2] APPLICABLE TO ALL WHO ENTER THEIR ACADEMIC COURSE AFTER 1ST OCTOBER 1892.

For those who commenced attendance on qualifying Classes before 1st October 1892. See Regulations B, page 151.

The Degree admits to the General Council of the University, to professional Study for the Learned Professions, to the Army, &c. Under recent regulations, framed in virtue of the Education Act (1872), the Degree qualifies for Masterships of Public Schools, subject to an examination in the methods of instruction, and six months' attendance in a Public School for the practice of teaching.

ACADEMICAL YEAR.

I. (1) The Academical year in each University commences on the first day of October. The classes meet for the winter session (which includes not less than twenty teaching weeks) on such day thereafter as the Senatus of each University shall determine; and close not later than the tenth day of the following April.

(2) The University Court of each University institutes a summer session in such of the subjects or branches of subjects qualifying for graduation in Arts as may be determined by the said Court after consultation with the Senatus. Such session commences on such day as the Senatus of each University determines, and includes ten teaching weeks at least. The classes are conducted by the Professors, or by Lecturers appointed by the University Court. The teaching of classes during the summer session is optional to any Professor whose commission is dated before 28th June 1892, unless such option is barred by the terms of his commission or of any existing Ordinance.

II. The Curriculum for the degree of Master of Arts (M.A.) extends over not less than three winter sessions, or two winter sessions and three summer sessions.

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[1] The annual amount of Matriculation, Class Fees, &c., of the regular course in Arts may be estimated at about £10, 10s.

[2] As contained in Ordinance No. 11 of the University Commissioners, now completed and amended in accordance with Ordinance No. 44. See Ordinance No. 44, Appendix, page 15.

PRELIMINARY EXAMINATION.[1]

III. (1) Before entering on the Curriculum (subject to the *proviso* contained in Section IV., Sub-section 1) each student must pass a Preliminary Examination in the following subjects :—

1. English.
2. Latin or Greek.
3. Mathematics.
4. One of the following :—Latin or Greek (if not already taken), French, German, Italian, Dynamics.

(2) The examination must be passed in the matters and on the standards hereinafter defined ; but there is a higher and a lower standard in Latin, Greek, and Mathematics.

Candidates must pass on the higher standard in at least one of these three subjects, and may pass on the lower standard in either or both of the remaining two ; subject always to the conditions relative to attendance contained in Section IV. hereof.

(3) English includes Grammar and Composition, and the outlines of Geography and British History, and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(4) Latin and Greek comprise grammatical questions, translation into English from Latin or Greek authors not previously prescribed, and translation of plain passages or easy sentences from English into Latin or Greek. The higher standard must not be lower than that formerly adopted in the examination for a Curriculum of three sessions, or for the Higher Grade Leaving Certificate of the Scotch Education Department, and the lower standard must not be lower than that presently adopted for the Lower Grade Leaving Certificate of the said Department.

(5) French, German, and Italian comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors not previously prescribed, and translation from English into French, German, or Italian ; and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(6) Mathematics on the lower standard comprises—(1) Arithmetic including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest ; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations ; (3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

[1] See also pages 128-131 inclusively.

(7) Mathematics on the higher standard, in addition, comprises Euclid, Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.

(8) Dynamics means the Elementary Statics and Kinetics of Solids, Liquids, and Gases.

(9) A candidate is obliged to pass in all the required subjects at one or not more than two examinations, provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition.

IV. (1) Attendance on any class does not qualify for graduation, unless the whole Preliminary Examination has been passed. But any Student who has passed in Latin, Greek, or Mathematics on the higher standard may attend a qualifying class in such subject or subjects without having passed in the other subjects of the examination, provided always that (*a*) no candidate will be allowed to present himself for examination in any subject qualifying for graduation until he has passed the whole Preliminary Examination, and (*b*) no Student will be admitted to a degree in Arts unless he has attended qualifying classes in the University granting the degree, or in another Scottish University, as provided by Section XXV. hereof, for three Academic years after he has completed his Preliminary Examination.

(2) Attendance on a class in any language included in the Preliminary Examination, does not qualify for graduation, unless the candidate, before entering the class, has passed the Preliminary Examination in that subject, and on the higher standard where a double standard is provided. He may, for that purpose, attend any Preliminary Examination held during the course of his study, taking only the paper set in that subject ; provided always that the provisions of the subsection immediately preceding have been satisfied.

(3) Attendance on a class in any language not included in the Preliminary Examination will not qualify for graduation, unless the candidate has previously passed an examination in that language on a standard as nearly as possible equivalent to the higher standard of the languages included in the Preliminary Examination.

(4) Attendance on a class of Mathematics or Natural Philosophy will not qualify for graduation unless the candidate, before entering the class—in addition to the examination in Mathematics on the Lower Standard required of all students—has passed an examination in the ollowi ng subjects :—

(*a*) Euclid : Book VI., Propositions 1-19, or Geometry equivalent thereto.
(*b*) Algebra : Quadratic Equations, Ratio and Proportion.
(*c*) The Trigonometry of Right-angled Triangles.

(5) A student, who, having passed the Arts Preliminary Examina-

tion in accordance with the provisions of these Regulations, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, will not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science.

V. (1) The Preliminary Examination is held at each University twice in each year, under such regulations as the Senatus, with the approval of the University Court, may from time to time determine, and is conducted in writing.

(2) The Joint Board of Examiners has power to accept the Higher Grade Leaving Certificate of the Scotch Education Department in any subject as an equivalent for the Preliminary Examination in that subject; and to accept the Lower Grade Leaving Certificate of the said Department as an equivalent for the Preliminary Examination on the lower standard in Latin, Greek, and Mathematics; provided they are satisfied that the standard of the examination, at which the said certificates were granted, is not lower than that required by these Regulations.

(3) The Joint Board of Examiners has power to determine what examinations, if any, other than those for the Leaving Certificates of the Scotch Education Department may be accepted as equivalent to the Preliminary Examination in whole or in part, provided they are satisfied that such other Examinations are in fact equivalent thereto.

ORDINARY DEGREE.

VI. Candidates for the ordinary degree of Master of Arts may follow the curriculum and take their degree in the subjects recognised for graduation under the Universities (Scotland) Act, 1858, subject always to the preceding provisions of these Regulations; or they may vary the curriculum for graduation under the regulations contained in the immediately succeeding sections.

VII. (1) Candidates must attend full courses in at least seven subjects, and are examined on these subjects.

(2) Of these subjects four must be (*a*) Latin or Greek (not modern Greek); (*b*) English or a Modern Language (French, German, Italian, or Spanish), or History; (*c*) Logic and Metaphysics, or Moral Philosophy; (*d*) Mathematics or Natural Philosophy.

(3) The remaining subjects may be selected by the candidate from the Departments specified in Section IX. of these Regulations, under the following condition:—That the whole subjects taken must include either (*a*) both Latin and Greek (not modern Greek), or (*b*) both Logic and Moral Philosophy, or (*c*) any two of the following three subjects,—Mathematics, Natural Philosophy, and Chemistry.

VIII. (1) Each of the subjects must be studied in a full course of not less than one hundred meetings of the class on separate days, except in

cases where the Senatus, with the approval of the University Court, have sanctioned, as qualifying for graduation, half courses of not less than fifty meetings on separate days ; or where the Senatus, with the approval of the said Court, may, having regard to the nature of the subject, sanction full courses of less than one hundred or half courses of less than fifty meetings respectively.

(2) Two half courses are held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) Where a subject is taught in a practical class, as well as in a systematic class, the Senatus, with the approval of the University Court, regulates the course of study and determines the relative proportion of lectures and laboratory or practical work.

IX. The Departments of Study for graduation in Arts in each University, if adequate instruction is provided, include the following subjects, with such additions or modifications in any University as may hereafter be made by Ordinance of the University Court :—

1. *Language and Literature.*

Latin.	Italian.
Greek.	Sanskrit.
Modern Greek.	Hebrew.
English.	Arabic or Syriac.
French.	Celtic.
German.	

2. *Mental Philosophy.*

Logic and Metaphysics.	Education (Theory, History, and Art of).
Moral Philosophy.	Philosophy of Law.
Political Economy.	

3. *Science.*

Mathematics.	Zoology.
Natural Philosophy.	Botany.
Astronomy.	Geology.
Chemistry.	

4. *History and Law.*

History.	Constitutional Law and History.
Archæology and Art (History of).	Roman Law.
	Public Law.

X. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, are entitled to receive the ordinary degree of Master of Arts on payment of the fees required.

DEGREE WITH HONOURS.

XI. (1) The degree of Master of Arts may be taken with Honours in any of the following Groups, in which Honours Classes have been established in at least two subjects :—

(*a*) Classics (*i.e.*, Latin and Greek, with optional subjects such as Comparative Philology, Ancient Philosophy, and Classical Archæology).
(*b*) Mental Philosophy.
(*c*) Mathematics and Natural Philosophy.
(*d*) Semitic Languages.
(*e*) Indian Languages.
(*f*) English (Language, Literature, and British History). English Literature is regarded as constituting the chief subject of this group, the linguistic and historical subjects being regarded as subsidiary thereto.
(*g*) Modern Languages and Literature.
(*h*) History.

(2) Every candidate must take up at least five subjects. Two of these subjects, under separate Professors or Lecturers, must be selected from the candidate's Honours Group ; and the five subjects must include one from each of the Departments of Language and Literature, Mental Philosophy, and Science, set forth in Section IX. of these Regulations.

(3) Every candidate must attend seven Classes, taking two Classes (one of which must be an Honours Class) in each of his Honours subjects.

(4) A candidate who has obtained Honours in any one Group may, before graduating, present himself again for examination in a second Honours Group. In such a case, he will not be required to attend more than two additional Classes, which must be Honours Classes, in the second Group.

(5) The examination in the subjects comprised in the candidate's Honours Group must be of a higher standard than that required for the ordinary degree of Master of Arts. In his other subjects the standard will be that required for the ordinary degree.

(6) The Senatus, subject to the provisions of Sections XVI. to XX. of these Regulations, from time to time determines what subjects are comprised in each Group, what subjects may be taken in half courses, and in which Group they may be taken : Provided that no new Group shall be instituted except by Ordinance of the University Court.

(7) The provisions of Section VIII. of these Regulations applies to Candidates for Honours ; but, in their case, not fewer than fifty meetings, on separate days, extending over an entire winter session, will constitute a full course for an Honours Class ; and not fewer than twenty-five meetings on separate days, extending over half a winter session, or an entire summer session, will constitute a half course.

XII. (1) Every candidate must include Latin, or Greek, either in his Honours Group or as one of the subjects in which the standard of examination is that required for the ordinary degree of Master of Arts.

(2) Greek is compulsory for candidates for Honours in Mental Philosophy.

(3) Candidates for Honours in English, or Modern Languages and Literature, or History (Groups *f*, *g*, *h* of Section XI. hereof) must include within the whole subjects taken for their degree (*a*) Logic and Metaphysics or Moral Philosophy, and (*b*) Mathematics or Natural Philosophy.

XIII. (1) The whole examination in the candidate's Honours Group must be taken at one time, and the whole examination necessary for graduation with Honours must be taken within five years from the date of the candidate's first matriculation after having passed the Preliminary Examination, unless that period shall be extended by the Senatus on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the extension.

(2) Candidates for Honours may be examined, at any time during their curriculum, in the three subjects in which the standard of examination is that required for the ordinary degree of Master of Arts.

XIV. (1) A candidate who has passed the examinations necessary for the ordinary degree of Master of Arts, but who has not yet graduated, may present himself for Honours within five years from the date of his first matriculation after having passed the Preliminary Examination, and will not be required to attend further classes:—subject always to the provisions of Section XII. hereof.

(2) No one is allowed to present himself a second time as a candidate for the degree of Master of Arts with Honours, who, upon examination, has failed to obtain Honours.

(3) A candidate is held to have presented himself who has notified his name for examination in accordance with the University regulations. But it will be in the power of the Senatus to relax this rule on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XV. (1) In each Group there are three Grades of Honours, to be denominated respectively the First, Second, and Third Class. The names of the candidates entitled to Honours in each class are arranged in alphabetical order.

(2) For the degree of Master of Arts with Honours a Diploma is given setting forth the subjects in which he has taken Honours.

BOARDS OF STUDIES.

XVI. The Senatus of each University from time to time institutes Boards of Studies corresponding as nearly as may be to the Departments of Study enumerated in Section IX. of these Regulations.

XVII. Each Board of Studies consists of such Members of the Senatus and Lecturers in the University as the Senatus may from time to time select, and the Senatus appoints one of the Members of the Board to be Convener thereof.

XVIII. Before the end of each winter session each Professor and Lecturer in the said Departments of study must submit to the proper Board of Studies for its approval a syllabus of the subjects and books proposed for the work of his class for the next Academical year. As soon as such approval has been given, the syllabus must be transmitted to the Faculty of Arts for its consideration, also the Professors, and in the case where a subject is taught by a Lecturer only, the Lecturer or Lecturers must submit to the proper Board of Studies a syllabus of the subjects and books to be prescribed for the Examinations for the Ordinary Degree of Master of Arts in the next Academical year, and for the Honours Examinations in the Academical year next but one. The syllabusses, with such observations as the Faculty of Arts may see fit to make thereon, must then be transmitted to the Senatus for its sanction.

XIX. (1) Before the end of each winter session each Board of Studies must prepare a scheme, defining, for the Academical year next but one following, the classes which are deemed to be Honours classes, and the subjects and courses of reading for Honours in its Department, and must report the same to the Faculty of Arts for its consideration. The scheme, with such observations as the Faculty of Arts may see fit to make thereon, is then transmitted to the Senatus for its sanction.

(2) Each Board must in like manner make recommendations through the Faculty of Arts to the Senatus in regard to the half courses which may be sanctioned under these Regulations, and the lectures which may be given on special subjects.

XX. The Principal and the Dean of the Faculty of Arts are *ex-officio* Members of each Board of Studies. The Convener presides, and, in his absence, each meeting appoints its own Chairman, and every Chairman has a deliberative, and, in cases of equality, a casting vote.

GENERAL.

XXI. In the case of a foreign student, whose native language is other than English, the standard required in English in the Preliminary Examination is such as the Joint Board of Examiners deems sufficient. In the case of a student, whose native language is other than European, the Senatus may accept as an alternative to Latin or Greek any other classical language, such as Sanskrit or Arabic, subject always to the provisions of Section IV. Sub-section 3 hereof.

XXII. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class as qualifying for graduation, on condition of his passing the full Preliminary Examination within

such time thereafter as the Senatus may appoint; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XXIII. The examination in all the languages in the Curriculum must, as far as possible, be on the same standard in Examinations for the same degree, and will in all cases test the candidate's knowledge of the history and literature of the several countries.

XXIV. A candidate for the degree of Master of Arts is not deemed to have attended a class as part of the Curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XXV. A student, who has given attendance at classes recognised as qualifying for graduation during one or more sessions in any one or more of the Scottish Universities, may complete his Curriculum by giving attendance during the remainder of his course in another Scottish University, and may proceed to a degree in the latter University in the same way, in all respects as if the previous part of his Curriculum had been taken therein: Provided always that every such student must produce, to the satisfaction of the Senatus of the latter University, certificates of his having passed the Preliminary Examination, and of his attendance at the former University or Universities, and must be examined in all the subjects necessary for a degree of Master of Arts by the Examiners of the University in which he completes his Curriculum, and in which alone he will be allowed to graduate; and that no such student will be admitted to a degree in any University unless he has given attendance in such University during the last winter session of his Curriculum, and one other winter session or two summer sessions.

XXVI. A candidate for the degree of Master of Arts with Honours, who has failed to be placed in any class, may, provided that in the opinion of the Examiners he has given evidence of sufficient attainments in any subject for the ordinary degree of Master of Arts, receive from them a certificate of having passed in such subject, which will count *pro tanto* as part of the examination required under the regulations for the ordinary degree of Master of Arts.

XXVII. The degree of Master of Arts is in no case conferred on persons who have not satisfied the conditions hereinbefore set forth, and is not conferred *honoris causa tantum*.

XXVIII. A student who, at the time these Regulations came into operation, had commenced his course of study with a view to graduation in Arts in any of the Scottish Universities under the regulations in force at the time in such University, may complete his course and become a candidate for the degree of Master of Arts, with or without Honours, in conformity with such regulations. And any

such student who has passed the examination hitherto required for admission to a Curriculum of three sessions, if he desire to come under these regulations, is exempted from the Preliminary Examination herein required.

XXIX. Students may attend any classes without having passed the Preliminary Examination within the meaning of these Regulations, but such attendance will not qualify for graduation.

XXX. Attendance on classes in the Faculty of Arts in which the teaching is on the standard at present recognised for the classes hitherto known as junior or middle classes, will in no case qualify for graduation. It is competent for the University Court in each University to discontinue the Junior Classes, or Middle Classes, where such exist, in Latin, Greek, and Mathematics, when, in the opinion of the Court, the provision for Secondary Education in schools throughout the country is sufficient to render such classes no longer necessary.

XXXI. Ordinances numbered 12, 14, 18, and 69 of the Commissioners under the Universities (Scotland) Act, 1858, as altered under the provisions of the said Act, are repealed, in so far as they are inconsistent with these Regulations.

Regulation regarding the Instruction and Examination of Women in Chemistry, Botany, and Zoology for Graduation in Arts.

Any Woman who has received the requisite instruction in Chemistry, Botany, and Zoology in any Scottish University, or in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will (subject to the provisions of Ordinance No. 18, General No. 9, Regulations for the Graduation of Women,[1] &c.) be admitted to Examination in these subjects for Graduation in Arts.

Any Woman, not a Matriculated Student of the University, availing herself of the permission to attend the Courses on Chemistry, Botany, or Zoology, at the above-named Schools of Medicine in Edinburgh, with a view to Graduation in Arts, must, at the commencement of each year of such attendance, enrol her name in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

[1] See Ordinance Appendix to Calendar, 1892-93, page 51.

JOINT BOARD OF EXAMINERS FOR THE SCOTTISH UNIVERSITIES.

A Joint Board of Examiners, who have the control and supervision of the Preliminary Examinations, is appointed annually by the University Courts of the four Scottish Universities, and holds office for a year from 1st February to 31st January in the succeeding year. The Board sits for a year at each University in rotation in the following order, viz. :—Edinburgh, Glasgow, Aberdeen, St Andrews. The Principal of the University at which the Board sits is Chairman for the time, and the Secretary of the University Court of that University is Convener.

The following are the members of the Board for the current year (1st February 1894 to 31st January 1895), and its meetings take place at the University of Glasgow :—

Chairman—The Very Rev. Principal John Caird, D.D., LL.D.

Convener—A. E. Clapperton, Esq., B.L.

Appointed by Glasgow University—Professor Bradley, M.A.; A. M. Bell, Esq.; R. H. Pinkerton, Esq.

Appointed by Aberdeen University—Rev. W. L. Davidson, LL.D. ; William Coutts, Esq., M.A. ; Dr William Scholle.

Appointed by St Andrews University—Professor Roberts, D.D. ; George Lowson, Esq., M.A., B.Sc. ; Dr Hugh Campbell.

Appointed by Edinburgh University—Professor Chrystal, LL.D. ; William Mitchell, M.A., D.Sc. ; C. D. Campbell, Esq.

The Joint Board issue from time to time to the Examiners of each University such general directions as to the character of the Preliminary Examination papers to be set, as may best secure an adequate and uniform standard.

SUBJECTS OF THE PRELIMINARY EXAMINATIONS ; AND EXAMINATIONS ACCEPTED AS EQUIVALENTS, ISSUED BY THE JOINT BOARD, 31ST JANUARY 1894.

The Joint Board have directed that the Preliminary Examinations for Degrees in Arts, Science, &c., shall be as follows :—

PRELIMINARY EXAMINATION IN ARTS AND SCIENCE.

1. English will include Grammar, Composition, Literature, History, and Geography.

(*a*) *Grammar* will include Analysis, Parsing, Derivation, and Correction of sentences.

(*b*) *Composition* will include an Essay and Paraphrasing.

(*c*) *Literature* will include a general knowledge of the life and works of the greater writers, and a more special knowledge of the works of two or three of these writers.

For April and October 1894 the special subjects will be Shakespeare's "Merchant of Venice," and Scott's "Kenilworth." For April and October 1895 the special subjects will be Shakespeare's "Julius Cæsar," and Scott's "Fortunes of Nigel."

(*d*) *Geography* will include a general knowledge of the Geography of the World, and a special knowledge of the Geography of the British Empire.

(*e*) *History* will include a knowledge of one of the three following periods to be taken in successive years in the order herein mentioned, namely:—The Outlines of the History of both England and Scotland (*a*) from the Roman occupation to the Accession of James VI. (for October 1893); (*b*) from the Accession of James VI. to the Union of the Kingdoms; (for April and October 1894); (*c*) from the Union of the Kingdoms to the Reform Bill of 1832 (for April and October 1895).

2. The *Latin* Examination on the Higher Standard will be—Translation, Prose Composition, and Grammar and Sentences.

3. The *Greek* Examination on the Higher Standard will be—Translation, Sentences, and Grammar.

The passages for Translation both from Greek and Latin will include Prose and Verse.

4. The *Latin* Examination on the Lower Standard will be—Translation and Parsing, Prose Composition, and Grammar and Sentences.

5. The *Greek* Examination on the Lower Standard will be—Translation and Parsing, Sentences, and Grammar.

6. The paper in Mathematics on the Lower Standard will include questions in (1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry —Euclid, Books I., II., and III. (or their equivalents), with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

Each question in Geometry will consist of two parts, of which one will be an easy deduction or illustrative exercise on the proposition set as bookwork.

7. The paper in Mathematics on the Higher Standard will, in addition, include questions on Euclid, Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry, to the solution of Triangles, inclusive, and the use of Logarithmic Tables. The proportion of the paper devoted to these subjects respectively shall be, as nearly as possible, two-fifths to Geometry, two-fifths to Algebra, and one-fifth to Trigonometry.

The questions on Geometry will be constructed on the principle already laid down as to the geometrical part of the paper on the Lower Standard.

Candidates who, having taken the Examination on the Higher Standard in any subject, have failed to pass on that Standard, but have obtained a percentage of marks equivalent to a pass on the Lower Standard, shall be held to have passed the Examination on the Lower Standard.[1]

8. The paper on Dynamics will include elementary statics and kinetics of solids, liquids, and gases.

The questions will be directed to test the Candidate's knowledge of the fundamental principles of the subjects, and will not involve algebraical or geometrical difficulties. As far as possible each question will consist of two parts, one of which will be a numerical, or other simple illustrative example of the principle with which the other part of the question deals.

9. For the Examination in French and German—

(*a*) Two papers will be set, both in French and German; the first paper to contain a passage for translation from English into French or German, with some short sentences of an idiomatic character; the second paper will contain a set of grammatical questions, two passages for translation into English (one in Verse, one in Prose), and a selection of Literary, Philological, or Historical questions, from which the candidate will be allowed to choose *one only*.

(*b*) An hour and a half will be allowed for the first paper, and two hours for the second.

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[1] An intermediate standard in Mathematics for attendance on a qualifying class in Mathematics or Natural Philosophy is instituted by Ordinance No. 44 [General No. 16.—Regulations for Degrees in Arts, supplementary to Ordinance No. 11], which will probably come into force by October 1894. By Section V. of this Ordinance:—"Attendance on a class of Mathematics or Natural Philosophy shall not qualify for graduation unless the Candidate, before entering the Class—in addition to the Examination in Mathematics on the Lower Standard required of all students—has passed an examination in the following subjects:—

(*a*.) Euclid: Book VI., Propositions 1-19, or Geometry equivalent thereto.

(*b*.) Algebra: Quadratic Equations, Ratio and Proportion.

(*c*.) The Trigonometry of Right-angled Triangles."

EXAMINATIONS ACCEPTED AS EQUIVALENTS FOR THE PRELIMINARY IN ARTS AND SCIENCE.

1. A Degree in Arts or in Science, not being an Honorary Degree, in any of the Universities of the United Kingdom, shall exempt from the Preliminary Examination in Arts or in Science, as the case may be.

2. For the Preliminary Examination in Arts and Science the Higher and Honours Grade Leaving Certificates of the Scotch Education Department in Latin, Greek, and Mathematics, will be accepted as equivalent to the Higher Standard in each of these subjects, as prescribed by the Arts Ordinance, and the Lower Grade Certificate to the Lower Standard; the Higher and Honours Grade Leaving Certificate in English and Modern Languages will be accepted as equivalent to the standard prescribed for each of these subjects by the Arts Ordinance.

No examinations conducted in Scotland, other than those of the Scotch Education Department, will be accepted as equivalent to the Preliminary Examinations in Arts and Science.

3. The Higher Certificate of the Oxford and Cambridge Schools Examinations Board will be accepted as equivalent to the Higher Standard in each subject in the Preliminary Examination in Arts and Science, and their Lower Certificate as equivalent to the Lower Standard.

4. For the Preliminary Examination in Arts and Science, the Deans of the Faculties concerned are empowered to accept, *pro tanto*, such examinations qualifying for entrance to recognised Colonial and Foreign Universities (although not included in the list of Equivalent Examinations issued by the Joint Board) as they consider to be sufficient, but on condition that they afterwards report each case to their respective Senates, and to the Joint Board as soon as possible.

M. C. TAYLOR,
Convener.

Revised,
31*st January* 1894.

DATES OF ENTERING FOR PRELIMINARY EXAMINATION (FOR ARTS, SCIENCE, MEDICINE, AND MUSIC) FOR ACADEMIC YEAR (1ST OCTOBER TO 1ST OCTOBER), AND FOR PAYMENT OF FEES.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates who intend to present themselves for Examination may obtain Schedules at the Matriculation Office, University (Old) Buildings, which must be completed and lodged and the fees paid at that office, not later than 21st September 1894 and 20th March 1895 for the autumn and spring Examinations respectively.

Candidates who cannot attend personally to pay the fees should transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered nor Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to be entered for the Examination until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

TIME-TABLES FOR PRELIMINARY EXAMINATIONS (FOR ARTS, SCIENCE, AND MEDICINE) AND BURSARY EXAMINATIONS (FOR ARTS AND SCIENCE) FOR 1894-5.

		Medical Preliminary Examinations.	Arts and Science Preliminary and Bursary Examinations.
1894.			
Sept. 28	Fri.	... ...	Additional English for Bursaries, 9-12[1, 4] Italian, 2-5[5]
,, 29	Sat.	English, 9-11, 12-2 Greek, 3-6 Do., 3-5[3]	English, 9-11, 12-2[1, 2, 4, 5] Lower Greek, 3-6[2, 5]

[1] Papers for the University Ordinary First Year Bursary Examination. Candidates for University Bursaries *only*, or for Heriot University Bursaries *only*, in October 1894, are not required to take the part of the Preliminary Paper which embraces English Literature and History and Geography, on Saturday 29th September.

[2] Papers for the Preferential Bursary Examination.

[3] For Students under the Old Regulations.

[4] Papers for Heriot University Bursaries both for men and women. The Papers for St George's Training College Bursaries are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such do not require to take any of the additional Bursary Papers.

[5] Also for Music Preliminary: for Italian half-an-hour more will be allowed.

		Medical Preliminary Examinations.	Arts and Science Preliminary and Bursary Examinations.
1894.			
Oct. 1	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12[2, 5] Lower Mathematics, 2-5[2, 5]
,, 2	Tu.	French, 3-6 Do., 3-5[3]	Higher Latin, 9 11, 12-2[1, 4] Latin for Second and Third Year Bursaries, 9-12 French, 1st paper, 3-4.30[4, 5]
,, 3	Wed.	German, 3-6 Do., 3-5[3]	Higher Greek, 9-11, 12-2[1, 4] Greek for Second and Third Year Bursaries, 9-12 German, 1st paper, 3-4.30, [4, 5]
,, 4	Thur.	Higher Mathematics, 9-11, 12-1.30[3] Logic, 2-4[3, 5]	Intermediate Mathematics, 9-11, 12-1.30. Higher Mathematics, 9-11, 12-1.30[1, 4] Mathematics for Second and Third Year Bursaries, 9-12 French, 2nd paper, 3-5[4, 5]
,, 5	Fri.	Moral Philosophy, 9-11[2] Mechanics, 1-4[3]	German, 2nd paper, 9-11, [4, 5] Dynamics, 1-4 Logic and Psychology for Third Year Bursaries, 1-4 Anglo-Saxon for Patterson Bursary, 1st paper, 9-12
,, 6	Sat.	Natural Philosophy, 9-11,[3, 5]	Additional Latin and Greek for Ordinary Bursaries, 9-12[1, 4] Classics for Second and Third Year Bursaries, 9-12 Additional Mathematics for Bursaries, 2-5[1, 4] Mathematics for Second and Third Year Bursaries, 2-4

[1] Papers for the University Ordinary First Year Bursary Examination. Candidates for University Bursaries *only*, or for Heriot University Bursaries *only*, in October 1894, are not required to take the part of the Preliminary Paper which embraces English Literature and History and Geography, on Saturday, 29th September.

[2] Papers for the Preferential Bursary Examination.

[3] For students under the Old Regulations.

[4] Papers for Heriot University Bursaries both for men and women. The Papers for St George's Training College Bursaries are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such do not require to take any of the additional Bursary Papers.

[5] Also for Music Preliminary: for Italian half-an-hour more will be allowed.

		Medical Preliminary Examinations.	Arts and Science Preliminary and Bursary Examinations.
1894.			
Oct. 8	Mon.	... ...	Higher Geometry for John Welsh and Heriot Bursaries, and for Kelland Prize, 9-12[4] Gaelic for Macpherson Bursary, 9-12 Anglo-Saxon for Patterson Bursary, 2nd paper, 9-12
,, 9	Tu.	MEETING OF PRELIMINARY EXAMINERS. MEDICAL AND SCIENCE CLASSES OPEN.	
,, 11	Th.	MEETING OF CLASSICAL COMMITTEE OF JOINT BOARD.	
,, 12	Fri.	MEETING OF JOINT BOARD.	
,, 13	Sat.	MEETING OF JOINT BOARD.	
,, 16	Tu.	ARTS CLASSES OPEN.	
1895.			
Mar. 29	Fri.	... .	Italian, 2-5[1]
,, 30	Sat.	English, 9-11, 12-2 Greek, 3-6 Do., 3-5[2]	English, 9-11, 12-2[1] Lower Greek, 3-6[1]
Apr. 1	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12[1] Lower Mathematics, 2-5[1]
,, 2	Tu.	French, 3-6 Do., 3-5[2]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30[1]
,, 3	Wed.	German, 3-6 Do., 3-5[2]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30[1]
,, 4	Thur.	Higher Mathematics, 9-11, 12-1.30[2] Logic, 2-4[2], [1]	Intermediate Mathematics, 9-11, 12-1.30 Higher Mathematics, 9-11, 12-1.30 French, 2nd paper, 3-5[1]
,, 5	Fri.	Moral Philosophy, 9-11[2] Mechanics, 1-4[2]	German, 2nd paper, 9-11[1] Dynamics, 1-4
,, 6	Sat.	Natural Philosophy, 9-11[2], [1]	... ...
,, 9	Tues.	MEETING OF PRELIMINARY EXAMINERS.	
,, 10	Wed.	MEETING OF JOINT BOARD.	
,, 11	Thur.	MEETING OF JOINT BOARD.	
,, 13	Sat.	GRADUATION CEREMONIAL.	

[1] Also for Music Preliminary: for Italian half-an-hour more will be allowed.
[2] For students under the Old Regulations.
[4] Papers for Heriot University Bursaries both for men and women. The Papers for St George's Training College Bursaries are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such do not require to take any of the additional Bursary Papers.

Fees for Degree of M.A.

The Fee for the Degree of Master of Arts (M.A.), with or without Honours, is £5, 5s.

Candidates for the Ordinary Degree pay 15s. for each subject professed.

Candidates who have paid for subjects for the Ordinary Degree, and who afterwards appear for Honours, pay the balance (if any due) of the £5, 5s.

Candidates who fail to pass either in one or more of the subjects, pay 10s. 6d. for each subject in which they have failed before they can be re-admitted to Examination in that subject.

Dates of Entering for Examinations for Degree of M.A. (Ordinary and with Honours), and for Payment of Fees.[1]

Candidates for Examination may obtain Schedules on application at the Matriculation Office.

Schedules must be lodged, Certificates shown, and Fees paid as follows :—

1. For the Examinations in October 1894, not later than 2nd October.

2. For the Examinations in Chemistry, Botany, Zoology, and Geology in Spring of 1895, not later than 18th March.

3. For the Examinations in July 1895, not later than 12th July.

4. For the other Spring Examinations the Schedules must be lodged and the Fees paid not later than 15th March, and the Matriculation Tickets and Class Certificates must be shown as follows :—For the Examinations in March at least *two clear days before* the date of the Examination in each subject ; for the Examinations in April, *not later than 29th March.*

When the Candidate has exhibited all the Matriculation

[1] When names are not entered nor fees paid on or before the stated dates, an additional or late entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to be entered for the Examination until his Name is entered, the Fee paid, and all the necessary Certificates, &c. lodged.

Tickets and Certificates required for the Examination, the Clerk will stamp on the Receipt for the Fee the words, "Certificates examined," which will entitle the Candidate to admission to the Examination, on producing the Receipt at the Examination Hall.

Candidates who have, in a former year, passed all the Examinations necessary for Graduation, but without having taken the Degree, and who desire to present themselves for Graduation in April 1895, must enter their names and addresses, show their Certificates, and pay the Fees at the *Matriculation Office, at least ten days previously.*

Candidates for Examination or for Graduation, must be Matriculated Students of the year in which they appear for Examination or for Graduation.

Every Candidate for Graduation who has passed the Examinations at the end of the Session, immediately before the date of the Graduation Ceremonial, must produce certificates of having passed the necessary Examinations and pay the Fee of £1 for Registration as a Member of the General Council *at least one clear day before the date of Graduation.*

The fees for Matriculation, for Examinations for Degrees, and for Registration of Graduates as Members of the General Council, are payable at the Matriculation Office, University. When Candidates cannot attend personally to pay the fees, they should transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," and not by cheques on private accounts.

At the Public Ceremonial of Graduation in Arts, held annually in April, the Degree of MASTER is conferred by the Chancellor or the Vice-Chancellor of the University, in name of the Senatus Academicus. Degrees are not conferred on any who are not present at the Graduation Ceremonial, and who have not signed the *Sponsio*, although they may have passed all their examinations. Those who are presented to receive the degree must appear in Academic costume, and with the hood proper to the Degree.[1] [2]

[1] Black silk lined with *white*.

[2] Immediately after obtaining the Degree, Candidates should apply for their Diplomas at the Matriculation office. There is no additional charge for the Diploma. Any Graduate who cannot apply personally is required to give written authority to some person to receive and give a receipt for it.

TIME-TABLES FOR M.A. EXAMINATIONS FOR 1894-95.

		M.A. Examinations.	M.A. Honours Examinations.
1894.			
Oct. 9	Tu.	English, 9-11, 11.30-1.30 Latin, 2.30-4.30	
,, 10	Wed.	Latin, 9-11 Greek, 11.30-1.30, 2.30-4.30	
,, 11	Th.	Mathematics, 9-11, 11.30-1.30 Natural Philosophy, 2.30-4.30	
,, 12	Fri.	Natural Philosophy, 9-11 Logic, 11.30-1.30, 2.30-4.30	
,, 13	Sat.	Moral Philosophy, 9-11, 11.30-1.30	
,, 16	Tu.	ARTS CLASSES OPEN	
,, 29	Mon.	Constitutional Law & History, 3-5	
,, 30	Tu.	Roman Law, 10-2 Constitutional Law & History, 3-5	
Nov. 1	Th.	Public Law, 10-2	
1895.			
Mar. 21	Th.	Sanskrit, 9-11, 11.30-1.30 Arabic and Syriac, 2.30-4.30	
,, 23	Sat.	Practical Chemistry (& following days if necessary) at hours to be announced Arabic and Syriac, 9-11	
,, 25	Mon.	Chemistry, 10-12 Botany, 1-3	
,, 26	Tu.	Zoology, 10-12 Geology, 1-3	
,, 27	Wed.	Oral Examinations in Science Subjects begin Celtic, 9-11, 11.30-1.30 Hebrew, 2.30-4.30	

NOTE.—In the Examinations for the Degree of M.A. in Roman Law, Public Law, and Constitutional Law and History, candidates who intend to proceed later to the Degree of LL.B. must pass on the LL.B. standard.

		M.A. Examinations.	M.A. Honours Examinations.[1]
1895.			
Mar. 28	Th.	Hebrew, 9-11 Astronomy, 11.30-1.30, 2.30-4.30	
,, 29	Fri.	Education, 9-11, 11.30-1.30 Archæology and Art, 3-5	English, 9-12, 2-5 Constitutional History, 9-12, 2-5
,, 30	Sat.	Archæology and Art, 9-11 History, 12-2, 3-5	English, 9-12, 2-5 Constitutional History, 9-12
Apr. 1	Mon.	English, 9-11, 11.30-1.30 Logic, 3-5	English, 9-12, 2-5 Classics, 9-12, 2-5 Logic, 9-12, 2-5 Pure Mathematics, 9-12, 2-5 History, 9-12, 2-5
,, 2	Tu.	Latin, 9-11, 11.30-1.30 Logic, 3-5	English, 9-12, 2-5 Classics, 9-12, 2-5 Logic, 9-12 Moral Philosophy, 2-5 Pure Mathematics, 9-12 Natural Philosophy, 2-5
,, 3	Wed.	Greek, 9-11, 11-30-1.30 Mathematics, 3-5	Classics, 9-12, 2-5 History, 9-12 History of Art (3 Papers), hours to be afterwards fixed Moral Philosophy, 9-12, 2-5 Natural Philosophy, 9-12, 2-5
,, 4	Th.	Mathematics, 9-11 Moral Philosophy, 11.30-1.30, 3-5	Classics, 9-12
,, 5	Fri.	Natural Philosophy, 9-11, 11.30.1-30 Political Economy, 3-5	
,, 6	Sat.	Political Economy, 9-11; French, 11.30-1.30, 3-5	
,, 8	Mon.	German, 9-11, 11.30-1.30	
,, 10	Wed.	MEETING OF M.A. EXAMINERS FOR OLD SUBJECTS.	
,, 13	Sat.	GRADUATION CEREMONIAL. COMMEMORATION SERVICE.	

[1] The order of the papers set at the particular hours fixed for the general Honours Subjects within any department, may be varied at the discretion of the Examiners.

		M.A. Examinations.	M.A. Honours Examinations.
1895.			
July 8	Mon.	Constitutional Law & History, 2-4	
,, 9	Tu.	Roman Law, 9-1 Constitutional Law & History, 2-4	
,, 11	Th.	Public Law, 9-1	
,, 20	Sat.	Practical Chemistry & following days (if necessary) at hours to be announced	
,, 22	Mon.	Chemistry, 10-12 Botany, 1-3	
,, 23	Tu.	Natural History, 10-12 Geology, 1-3	
,, 24	Wed.	Oral Examinations in Science Subjects begin	

PASS EXAMINATIONS FOR MASTER OF ARTS.

(See Time-Tables, *supra*.)

The subjects for the Examinations for the Ordinary Degree in October 1894 and April 1895 are as follows :—

I.—Department of Language and Literature.

1. *Latin.*

Horace, *Epistles*, ii.
Vergil, *Georgics*.
Martial, i., ii., iii., iv. (Sellar and Ramsay's selections).
Cicero, *Divinatio in Caecilium and Actio i. in C. Verrem* (Heitland and Cowie).
Tacitus, *Annals*, vi.
A passage from a Latin Author not prescribed.
Latin prose composition.
Roman History.—A general knowledge of Roman history to the death of Augustus, and a special knowledge of the period from 133 to 49 B.C.
Roman Literature.—A general knowledge of the course of Roman Literature till the end of the Augustan Age, and a more special knowledge of the Lives and Works of Vergil, Horace, Cicero, Martial, and Tacitus.
Translation from English into Latin prose is required of every Candidate.

2. *Greek.*

Odyssey, Book xiii.
Sophocles, *Philoctetes.*
Thucydides, Book ii.
Plato, *Republic*, Book i.
A passage from a Greek Author not prescribed.
Greek prose composition.
Greek History.—A general knowledge of Greek History to the death of Alexander, and a more special knowledge of the period embraced by the Peloponnesian War.
Greek Literature.—A general knowledge of the course of Greek Literature, and a special knowledge of the history of the Greek drama.
Laws of Hexameter and Iambic verse.

3. *English.*

The Principles of English Composition and Style: Class Lectures.
History of the English Language: The First Five Chapters of Morris's "Historical Outlines of English Accidence."
History of English Literature, more particularly from 1580 to 1789: Lectures, with Morley's Text Book, and the portions of Hallam's "Literature of Europe" that relate to English writers of part of the time mentioned.
Special Readings required:—
Shakespeare's *Midsummer Night's Dream* and *Coriolanus.*
Milton's *Comus*, and Tennyson's *Maud.*
De Quincey's Essay entitled "*Rhetoric*," and Johnson's *Life of Dryden.*
Wordsworth's *Prose Prefaces, &c., to his Poems*, with Book I. of his *Excursion.*

4. *French.*

Corneille, *Le Cid.*
V. Hugo, *L'Œuvre complète, Extraits*, Part I. (Poetry).
H. de Balzac, *Eugénie Grandet.*
Mignet, *Histoire de la Revolution Française* (Williams & Norgate).
Passages from French Authors not prescribed.
French prose composition.
A general knowledge of the development of the French Language.
A general knowledge of French History, and of the History of French Literature, with a more minute knowledge of the period 1680-1780.

Translation from English into French prose is required of every Candidate.

5. *German.*

Schiller, *Wilhelm Tell.*
Gœthe, *Hermann und Dorothea.*
Becker's *Friedrich der Grosse* (ed. Buchheim, Clarendon Press).
G. Ebers, *Eine Frage* (Whittaker).
Passages from German Authors not prescribed.
German prose composition.
A general knowledge of the development of the German Language.
A general knowledge of German History, and of the History of German Literature, with a more minute knowledge of the period 1740-1820.

Translation from English into German prose is required of every Candidate.

6. *Sanskrit.*

Hitopadeśa, book i.
Nala, cantos 1-11.
Sanskrit Grammar.
Sanskrit prose composition.
A general knowledge of the course of Sanskrit Literature.

7. *Hebrew and Oriental Languages.*

Hebrew.

1. Questions in Grammar.
2. Translation into Hebrew Prose.
3. Exodus.—Samuel, books 1 and 2.
   Joshua.
   Psalms, Book v.—Psalms 107-120.
4. *Jewish History* from B.C. 1010-598.

Syriac.

1. Questions in Grammar.
2. Translation into Syriac Prose.
3. Sections i., iii., ix., xii., xxiv., and xxx. of Roediger's *Chrestomathia-Syriaca* (Ed. 1892), and Christianity in Nestle's Grammar.

Arabic.

1. Questions in Grammar.
2. Translation into Arabic Prose.
3. Arnold's *Chrestomathia Arabica*—Sections i., ii., iii., iv.
4. *Arabian History.*—Sir W. Muir's *The Caliphate:* its Rise, Decline, and Fall.—Chapters 1-45 and 64-67.

8. *Celtic.*

Modern Gaelic (Scottish and Irish)—MacDonald's Poems, *or* Keating's Three Shafts of Death.
Old Gaelic.—Fis Adamnáin (Windisch's Irische Texte).

Passages in Old and Modern Gaelic (both Scottish and Irish) from Authors not prescribed.
Translation from English into Gaelic Prose (Scottish *or* Irish).
The History, more especially the Literary History, of the Gael before the year 1000 A.D.

II.—Department of Mental Philosophy.

1. *Logic and Psychology.*

The elementary doctrines of Logic and Psychology.
Locke's *Essay*, Book ii., Chapters 1-12, and Chapter 23, along with "*Locke*," in "Philosophical Classics" (Blackwood).
Professor Fraser's "*Selections from Berkeley*"—"Editor's Introduction;" "Principles of Human Knowledge" (sect. 1-84, and 135-156); "Divine Visual Language: A Dialogue."
Hume's *Enquiry concerning Human Understanding*.—Sections 1-7 inclusive.

2. *Moral Philosophy.*

Professor's "Handbook of Moral Philosophy;" Butler "On Human Nature;" Mill's "Utilitarianism;" Sidgwick's "Outlines of the History of Ethics," Chapters ii. and iv.

3. *Commercial and Political Economy.*

The subjects of examination are: The Lectures of the Professor; Mill's *Principles of Political Economy*, Books i.-iii.; Marshall's *Economics of Industry* (*new edition*); Adam Smith's *Wealth of Nations*, Book iv.; Professor Nicholson's *Money and Monetary Problems* (2nd edition), Part I.

4. *Theory, Art, and History of Education.*

Theory and Art.—The subjects of examination are: Lectures of the Professor; *Locke's Thoughts* (the parts which deal with moral training); *Locke on the Conduct of the Understanding; Language and Linguistic Method in the School, by Professor Laurie: Comenius' Great Didactic.*

The Theory or Science of Education comprises the Psychology and Ethics in Laurie's "*Institutes of Education.*"

History.—Hellenic and Roman Education, as in the Lectures. A general knowledge of the History of Education, as in Quick's Educational Reformers.

5. *Philosophy of Law.*

(*See under* "*Public Law.*")

III.—Department of Science.

1. *Mathematics.*

Arithmetic.

Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.

Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of the subjects of examination.

2. *Natural Philosophy.*

Elementary Dynamics.

Astronomy and Experimental Physics.

Candidates must show sufficient knowledge both of Dynamics and of Experimental Physics.

3. *Practical Astronomy.*

The Class Lectures—

Use of the Sextant, Transit-Circle and Ring Micrometer.

Young's General Astronomy; Main's Practical and Spherical Astronomy, or corresponding portions of Brünnow's Astronomy. Sir John Herschel's Outlines of Astronomy, omitting Part IV. For beginners:—Barlow and Bryan, Elementary Mathematical Astronomy.

4. *Chemistry.*

Outline of Examination same as for First Professional Examination for Degrees in Medicine.

5. *Zoology.*

(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups and the structure, habits, &c., of *Amœba*, *Paramœcium*, *Hydra*, *Arenicola*, *Hirudo*, *Lumbricus*, *Anodon*, *Helix*, *Nephrops*, and *Periplaneta*.

(*c*) The distinctive characters of the Chordata groups and the structure, habits, &c., of Myxine, *Raia*, *Clupea*, *Rana*, *Columba*, Ornithorhynchus, Macropus, *Lepus*, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis catus, Balæna, Vespertilio, and Simia (Orang).

(*e*) A general knowledge of the orders of Sauropsida and Mammalia.

(*f*) The structure and life-history of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The more important facts of the development of Scyllium, Rana, Gallus, and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

The Practical Examination will be confined to the types in italics in sections (*b*) and (*c*).

In addition to the above subjects, Candidates will require to possess a general knowledge of Wallace's "Darwinism."

6. *Botany.*

The characteristic features of the following groups and classes of the vegetable kingdom :—

Thallophyta [Schizophyta, Algæ, Fungi]: Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology.

The life-history of the following plants: — Bacterium, Nostoc, Spirogyra, Saccharomyces, Mucor, Vaucheria, Agaricus, Collema, Puccinia, Claviceps, Eurotium, Marchanty, Fucus, Polysiphonia, Funaria, Aspidium, Equisetum, Selaginella, Pinus, Cycas, Scilla, Capsella, Helianthus, Ulmus, Quercus.

The characters of plants belonging to the chief British natural orders of Phanerogamæ.

7. *Geology including Mineralogy.*

1. *Dynamical Geology.*—The nature and operation of geological agents :—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

2. *Mineralogy.*—Characters of the more important rock-forming minerals.

3. *Petrology.*—Macroscopic and Microscopic Characters, Composition, Origin and Distribution of the more important Rocks.

4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

5. *Stratigraphical Geology.*—The History of the Geological Systems of the British Islands.

6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders found fossil in Britain.

7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

IV.—Department of History and Law.

1. *History.*

The Subject of Examination will be, until further notice, the History of the British Empire, viz. :—(1) History of England from A.D. 450 to 1688, in outline ; (2) History of the Empire from 1688 to 1832, in fuller detail ; and (3) Fortescue's "Governance of England" (ed. by Plummer ; Clarendon Press).

Some acquaintance with original texts in Old English, Latin, and at least one modern language will be required.

The Examiners will attach greater importance to a grasp of principles than to mere memory work.

For elementary purposes candidates are referred to Gardiner's "Student's History," or to Green's "Short History," or to Bright's "History of England." For further study the histories by Lord Mahon and Mr Lecky are recommended, and those of Mr Hallam (vol. iii.) and Sir T. Erskine May may also be consulted.

2. *Archæology and Art* (*History of*).

The subjects for examination will be the Class lectures, the Professor's Manual "The Fine Arts," Conway's "Dawn of Art in the Ancient World," Maspero's "Egyptian Archæology" (translated), Paris's "Manual of Ancient Sculpture," Poynter's "Classic and Italian Painting." Candidates will be expected to show some knowledge of the original authorities for the different periods of Art History.

3. *Constitutional Law and History.*

The subject of examination is the Constitutional Law and History of England, as treated of in the works of Stubbs, Hallam, and May, with occasional reference to the constitutions of other countries. See also under "Graduation in Law." The examinations will be held at the same time as those in the Faculty of Law, viz., on the last Monday and Tuesday in October 1894, and on the second Monday and Tuesday of July 1895.

4. *Roman Law.*

The subjects for examination will be (1) The history of the law from the foundation of Rome to Justinian, and the doctrines of the law so far as relating to (*a*) The Personal and Domestic Relations, and (*b*) Property and Real Rights. Maine's "Ancient Law," and Muirhead's "Historical Introduction," are recommended for the historical part of the examination; and Gaius' Institutes, Bk. i. and Bk. ii., §§ 1-96, and Justinian's Institutes, Bk. i. and Bk. ii., Tits. i.-ix., must be professed for the doctrinal part.

5. *Public Law.*

I. The Philosophy of Law.

(*a*) The Science of Natural Law; Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Bluntschli, The Theory of the State. (*b*) The Science of Positive Law; The Student's Austin; Holland, Jurisprudence; Sir H. Maine's Works.

II. Public International Law.

Wheaton's "History of the Law of Nations," Hall's "International Law." *See* Faculty of Law.

EXAMINATIONS FOR GRADUATION IN ARTS WITH HONOURS.

(*Examinations for Honours are held in April only.*)

See Time-Table of Examinations, page 138.

N.B.—In April 1895 and thereafter the number of *Unseen Passages* from Latin and Greek authors will be increased, and general reading will be more tested than at present.

The subjects of Examination for the Degree of Master of Arts with Honours in April 1895 and 1896 are as follows :—

A.—Classics.

1. *Latin for April* 1895.

Plautus, *Trinummus*, *Captivi*.
Vergil, *Aeneid*, ix., x., xi., xii.
Horace, *Satires*, *Epistles*, *Ars Poetica*.
Propertius (Postgate's selections, *Macmillan*).
Martial, Bks. i.-vi. (in Sellar & Ramsay's selections).
Cicero, *Philippics*.
Tacitus, *Annals*, i., ii., iii., iv.
Latin prose composition, and translation from Authors not prescribed.
Roman History.—A general knowledge of Roman History to the end of the first century A.D., and a more minute knowledge of the period from B.C. 100 to A.D. 69.
Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Authors prescribed.

Latin for April 1896.

Plautus, *Captivi*, *Stichus*.
Vergil.
Horace.
Lucan Pharsalia, i., ii.
Cicero, *Letters* (Watson's selection, Parts i., ii., iii.).
Tacitus, *Annals*, xii., xiii., xiv., xv.
Latin prose composition, and translation from Authors not prescribed.
Roman History.—A general knowledge of Roman History to the end of the first century A.D., and a more minute knowledge of the period from 265-146 B.C.
Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Authors prescribed.

2. *Greek for April* 1895.

Homer, *Iliad*, i.-vi.
Greek Lyric Poetry (Farnell's Edition, *Longmans*, 1891).

Aeschylus, *Agamemnon*, *Eumenides*, and *Choephori*.
Thucydides, i. and ii.
Aristotle, *Poetics*, omitting chapters xx. and xxv. (Vahlen's text).
Greek prose composition.
Translation from Authors not prescribed.
Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution.
Greek Literature.—A general knowledge of the course of Greek Literature, and a more minute knowledge of the Authors prescribed.
Greek Grammar.—As a special subject *Monro's* Homeric Grammar.
Comparative Philology.—The principles of *Comparative Philology* as applied to Latin and Greek. Text-book recommended, "Sounds and Inflexions in Greek and Latin," by King and Cookson.

Or, instead of *Comparative Philology*, one of the optional subjects, such as Ancient Philosophy, or Classical Archæology, recognised under the New Ordinances for Graduation with Honours.

Greek for April 1896.

Homer, *Iliad* (xiii.-xxiv.).
Aristophanes, *Clouds*, *Wasps*, *Frogs*.
Theocritus.
Plato, *Gorgias* and *Phaedrus* (Thompson's Edition).
Aristotle, *Poetics*, omitting chapters xx. and xxv. (Vahlen's text).
Greek Prose Composition.
Translation from Authors not prescribed.
Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution.
Greek Literature.—A general knowledge of the course of Greek Literature, and a more minute knowledge of the Authors prescribed.
Greek Grammar.—As a special subject, *Monro's* Homeric Grammar.

Optional Subjects.

1. *Comparative Philology for April* 1895.

Candidates who take Comparative Philology as their optional subject for Graduation with Honours in Classics, will be examined in the following branches of Linguistic Science :—

(*a*) Principles of Indo-European Comparative Philology, with special reference to the Greek and Latin Languages.
(*b*) Etymology of Greek and Latin.

Books recommended for private study :—

(*a*) V. Henry, Short Comparative Grammar of Greek and Latin (trans. by R. T. Elliott).

Also recommended for reference :—

King & Cookson, Principles of Sound and Inflexion.
(*b*) Curtius, Principles of Greek Etymology, Book ii.

Comparative Philology for April 1896.

Candidates who take Camparative Philology as their optional subject for Graduation with Honours in Classics, will be examined in the following branches of Linguistic Science :—

(*a*) Science of Language, including the history and general results of Linguistic research.

(*b*) Principles of Indo-European Comparative Philology, with special reference to the Greek and Latin Languages.

(*c*) Etymology of Greek and Latin.

Books recommended for private study :—

(*a*) M. Müller, Lectures on the Science of Language.
W. D. Whitney, Language and the Study of Language.
B. Delbrück, Introduction to the Study of Language.

(*b*) V. Henry, Short Comparative Grammar of Greek and Latin (transl. by R. T. Elliott).

Also recommended for reference :—
King & Cookson, Principles of Sound and Inflexion.
Brugmann & Stolz, Greek and Latin Grammar (Iwan Müller's Handbuch der Klassischen Alterthumswissenschaft, vol. ii.).
Blass, Pronunciation of Ancient Greek (Cambridge University).

(*c*) Curtius, Principles of Greek Etymology, Book ii.

2. *Classical Archæology for April* 1895.

1. The general history of the Arts of Form in Greece.
To be studied in Overbeck's "Schriftquellen," and Murray's "Handbook of Greek Archæology."
2. The history of Greek Sculpture.
To be studied in Murray's "History of Greek Sculpture."

Classical Archæology for April 1896.

1. The general history of the Arts of Form in Greece.
To be studied in Overbeck's "Schriftquellen," and Murray's "Handbook of Greek Archæology."
2. The history of Greek Sculpture.
To be studied in Murray's "History of Greek Sculpture."
3. The types of Greek Coins.
To be studied in Gardner's "The Types of Greek Coins."

3. *Ancient Philosophy for April* 1895.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller.

Books recommended :—Zeller, *Pre-Socratic Philosophy*, vol. i. and ii. (Translation by Alleyne. Longmans, Green & Co.). Burnet, *Early Greek Philosophy* (A. & C. Black).

or, as an alternative:

The Philosophy of Aristotle in its psychological and ethical aspects, with special reference to Aristotle, *De Anima* and *Nicom. Ethics*, Books i.-iv. and x.

Ancient Philosophy for April 1896.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller.

Books recommended, see 1895.—Plato, *Theætetus*, together with the outlines of the Platonic Philosophy.

or, as an alternative:

Plato, *Philebus*, together with the outlines of the Platonic Philosophy. The Philosophy of Aristotle in its psychological and ethical aspects, with special reference to Aristotle, *De Anima* and *Nicom. Ethics*, Books i.-iv. and x.

B.—Mental Philosophy.

1. *Logic and Metaphysics for April* 1895 *and April* 1896.

The more advanced doctrines of Logic and Psychology.
A competent knowledge of the History of Philosophy.
Plato, *Theætetus.*
Aristotle, *Metaphysics*, Book i., for 1895: for 1896 Aristotle, *De Anima.*
Spinoza, *Ethics*, Parts i., ii.
Locke, *Essay concerning Human Understanding*, in connection with "*Locke*" in "Philosophical Classics" (Blackwood).
Berkeley, in "Philosophical Classics" (Blackwood); also "*Selections from Berkeley*" (fourth edition).
Hume, *Treatise on Human Nature*, Book i. (Of the Understanding).
Kant, *Critique of Pure Reason.*
Hegel's *Logic* in Professor Wallace's translation, chapters i.-vi.
Lotze's *Metaphysics*, Book i. (Clarendon Press).

2. *Moral Philosophy.*

The Class Lectures for Advanced Students.
Plato's *Protagoras.*
Plato, *Republic.*
Aristotle, *Ethics* (omitting v., vi., vii.).
Spinoza, *Ethics*, Parts iii., iv., v.
Kant, *Groundwork of the Metaphysic of Ethics.*
Hegel's *Philosophy of the State* (Grigg's German Philosophical Classics).
Sidgwick's *Methods of Ethics* Books iii. and iv.
Green's *Prolegomena of Ethics*, Books ii. and iii.
Herbert Spencer's *Data of Ethics* and *Justice.*

C.—Mathematics and Natural Philosophy.

Pure Geometry, Algebra, Theory of Equations, including Determinants, Trigonometry (Plane and Spherical), Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences. (The Candidate may, if he please, profess the Elements of Quaternion Analysis.)

Experimental Physics; Analytical Dynamics and Thermodynamics; *imperative*.

In addition, two or more branches of Elementary Mathematical Physics (such as Geometrical or Physical Optics, Statical or Voltaic Electricity, Capillarity, &c.). These may be selected by the Candidate.

D.—English (Language, Literature, and British History).

Subjects for April 1895.

A.—Literature.

1. Rhetoric and the Principles of Literature.

   Knowledge of the following required:—Aristotle's *Rhetoric* and *Poetics;* Quintilian's *Institutes;* Bacon's *Advancement of Learning*, Book II.; Bain's *Composition and Rhetoric;* De Quincey's *Essay on Rhetoric;* Masson's *Essay on Milton's English and Versification* (in Edition of Milton); Guest's *English Rhythms;* Wordsworth's *Prose Prefaces*.

2. History of English Literature.

   (1.) *General.—Books recommended:*—Ten Brink's *Early English Literature* (transl. by Kennedy); Stopford Brooke's *Early English Literature;* Ward's *English Dramatic Literature;* Saintsbury's *Elizabethan Literature;* Ward's *English Poets;* Craik's *English Prose;* Irving's *History of Scottish Poetry*.

   (2.) *Special.*—The Literature of the Eighteenth Century.—Candidates are required to show thorough knowledge of the following:—Dryden's *Indian Emperor*, *Essay of Dramatic Poesy*, and *MacFlecknoe:* Pope's *Essay on Criticism*, *Essay on Man*, and *Satires and Epistles;* Swift's *Tale of a Tub* and *Gulliver's Travels;* Johnson's Lives of Cowley, Dryden, and Pope; Thomson's *Seasons;* Poems of Allan Ramsay, Fergusson, and Burns; Cowper's *Task;* Gray's Poems; Burke's *Thoughts on the Causes of the Present Discontents*.

   Books recommended:—Leslie Stephen's *English Thought in the Eighteenth Century* (II. xii.); Gosse's *Eighteenth Century Literature;* volumes appertaining to the Eighteenth Century in the "English Men of Letters" Series.

Candidates will be required to write a Critical Essay on some subject arising out of Nos. 1 and 2.

B.—Language.

1. The History of Old and Middle English.

   Text-books for reference—Sievers's *Old English Grammar* (ed. Cook) or Sweet's Introduction to the *Old English Reader*; Skeat's *Principles of English Etymology*; Morris's *Historical Outlines of English Accidence*; Kellner's *Historical Outlines of English Syntax*.

2. Special Readings — *The Chronicle*, A.D. 890-1001, in the Parker Text (ed. Plummer); *The Beowulf*, ll. 1251-1887 (Grein, ed. Wülcker, I. pp. 195-219); *The Dream of the Rood*, (Ruthwell and Vercelli Texts); Selections from *The Owl and the Nightingale*, Laurence Minot's verse, and Layamon's *Brut* (Caligula Text), printed in the *Specimens of Early English* (Clar. Press); Chaucer's Prologue to the *Canterbury Tales*; and Gavin Douglas's Prologues to the *Æneid*.

3. Unseen passages for translation into Modern English.

C.—British History.

A general knowledge of British History, political and social, and a thorough knowledge of the history of a prescribed period.

For the Books recommended under this head, see under History.

Subjects for April 1896.

The subjects are those prescribed for April 1895, same as above, save that the Special subject under No. 2 will be *Elizabethan Literature*. Candidates are required to show a thorough knowledge of the following books relating to that subject :—

Marlowe's *Doctor Faustus* and *Edward II.*; Spenser's *Shepheardes Calender* and *Faerie Queene* (Book I.); Lyly's *Euphues*; Sidney's *Apologie for Poetrie*; Shakespeare's *Tempest*, *Love's Labour's Lost*, *Henry V.*, *Hamlet*, and *Sonnets*; Bacon's *Essays*; Ben Jonson's *Every Man in his Humour* and *Volpone*; Drummond's Poems and *Cypresse Grove*; "Lyrics from the Elizabethan Song-Books" (ed. Bullen).

Books recommended :—Ward's *English Dramatic Literature*; Dowden's *Shakspere, a Critical Study of his Mind and Art*; Saintsbury's *Elizabethan Literature*; Church's *Spenser* and *Bacon*, and Symonds's *Sidney* and *Ben Jonson*.

E.—History.

The Honours subjects at present recognised are (1) History of Great Britain, (2) Constitutional History, and (3) History of Art. For the Ordinary and the Honours courses, see pages 72, 74, 110-117.

I. Under the head of *British History* the following three papers will be set :—

(1) General survey, from the earliest period to the present day.

(2) Original sources, and special points, political, geographical, &c., connected with the subjects embraced in the first paper.

(3) Creation of the British Empire (1688-1815), with special reference to European and Colonial History and to original sources. (Authorities, see page 113.)

II. Under the head of *Constitutional History* the three papers will embrace :—

(1) *a.* Constitutional History of England, from 1688 to 1832. (Authorities, *inter alia*, the works of Burke, Hallam, Sir T. Erskine May, Anson, and Lecky.)

b. The Constitutions of the U.S. of America, of France, Germany, and Switzerland. (See, *inter alia*, the works of Bancroft, Bryce, and Adams and Cunningham.)

(2) Wycliffe and his Influence, political and social. (Authorities, *inter alia*, Wycliffe's Works, Lechler's Wycliffe, works of Langland and Chaucer, Wright's "Political Songs," and Loserth's "Wycliffe and Huss.")

(3) *a.* The development of the English Monarchy, with special reference to Fortescue's "Governance of England" (ed. by Plummer). (Authorities, The Standard Constitutional Histories.)

The Candidate must show some familiarity with the original sources (in Latin, French, Old English, &c.).

III. Under the head of *History of Art* the three papers will embrace :—

(1) The Class Lectures; the Professor's Manual "The Fine Arts"; Conway's "Dawn of Art in the Ancient World"; Woltmann's "History of Painting," Vols. I. and II.; select passages bearing on Ancient Art from Overbeck's "Schriftquellen"; portions of Theophilus' "Schedula Diversarum Artium"; selected lives from Vasari's "Lives of the Italian Artists"; Lady Dilke's "Art in the Modern State."

(2) Classical Archæology, to be studied in Overbeck's "Schriftquellen" (a collection of passages from ancient authors bearing on Classical Art) and Murray's "Handbook of Greek Archæology." (London: John Murray.)

Questions will also be set in the special subject of study taken up in the Class Lectures on Classical Archæology for Session 1894-95, being "the critical discrimination of successive styles in the works of Greek Sculptors." This subject may also be studied in Murray's "History of Greek Sculpture," Brunn's "Geschichte der griechischen Künstler," Overbeck's "Geschichte der griechischen Plastik," &c.

The questions in Classical Archæology will be the same as those set in this subject for Honours in Classics (see p. 148), and the examination will be at the same time (to be afterwards fixed).

B.—REGULATIONS OF THE UNIVERSITY OF EDINBURGH RELATIVE TO THE DEGREE OF MASTER OF ARTS (M.A.), APPLICABLE TO ALL WHO HAD ENTERED ON THEIR ACADEMICAL COURSE BEFORE 1ST OCTOBER 1892.[1]

The Degree of Master of Arts admits to the General Council of the University, to professional Study for the Learned Professions, to the Army, &c. Under recent regulations, framed in virtue of the Education Act (1872), the Degree qualifies for Masterships of Public Schools, subject to an examination in the methods of instruction, and six months' attendance in a Public School for the practice of teaching.

I. The ordinary Course of Study necessary for the Degree of Master of Arts (except in the circumstances mentioned in the following Article) extends over FOUR WINTER SESSIONS, and includes attendance for *not less than two Sessions* on the Classes of Humanity (Latin), Greek, and Mathematics respectively; attendance for not less than one Session on the Classes of Logic and Metaphysics, Moral Philosophy, and Natural Philosophy respectively; and also attendance on the Class of Rhetoric and English Literature.

II. Any Student who, at the time of his Entrance to the University shall satisfy the Professors of the Faculty of Arts, on Examination, that he is qualified to attend the Higher Classes of Latin, Greek, or Mathematics, or any one of them, may be admitted to such Higher Class or Classes without having previously attended the Junior Class or Classes in the same department. When a Student has been thus considered by the Faculty

[1] The annual amount of Matriculation, Class Fees, &c., of the regular course in Arts may be estimated at about £10, 10s.

of Arts to be qualified for admission to the Higher Classes both of LATIN and GREEK, without having previously attended the First or Junior Latin and Greek Classes, his Course of Study for the Degree of Master of Arts may be completed within THREE WINTER SESSIONS, instead of Four. And no Student who is thus qualified for admission to the Higher Class of LATIN and GREEK, or of MATHEMATICS, without having previously attended the First or Junior Class in the same department, is required to give attendance in Latin, Greek, or Mathematics respectively, for more than *one* Session, as a necessary part of the Course of Study for the Degree of Master of Arts.

III. In pursuing the Course of Study for the Degree of Master of Arts, no Student is permitted to pass from the Junior to the Higher Class, unless the Professor is satisfied of his fitness to enter the Higher Class.

IV. It is in the power of any Student, who has given attendance during one or more Sessions in any Scottish University, to complete his Course of Study, by giving attendance in the University of Edinburgh during the remaining Sessions of his Course; provided always that every such Student gives attendance in the University of *Edinburgh* during, at least, the *last Two Sessions* of his Course; and provided also that he produces, to the satisfaction of the Faculty of Arts of the University of Edinburgh, Class Certificates of his attendance at the former Scottish University—but he must be examined in all the three Departments necessary for the Degree of Master of Arts by the Examiners of the University of Edinburgh.

V. Candidates for the Degree of Master of Arts must be examined on all the subjects of instruction embraced in the above Course of Academical Study; and the examinations may be conducted wholly in writing or partly *viva voce.*

VI. Any Student who has completed his attendance on the Classes of

LATIN AND GREEK,

required in the prescribed Course of Study, may be examined on these Subjects, at any Examination for Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

In like manner, any Student who has completed his attendance on the Classes of

LOGIC AND METAPHYSICS, MORAL PHILOSOPHY, AND RHETORIC AND ENGLISH LITERATURE,

may be examined on these Subjects, at any Examination for Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

Also in like manner, any Student who has completed the attendance required in the prescribed Course of Study on the Classes of

MATHEMATICS AND NATURAL PHILOSOPHY,

may be examined on these subjects at any Examination for Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

And if such Student shall satisfy the Examiners, when so examined, in the Department of CLASSICAL LITERATURE, which comprehends Latin and Greek—or in the Department of PHILOSOPHY, which comprehends Logic and Metaphysics, Moral Philosophy, and Rhetoric and English Literature—or in the Department of MATHEMATICS and PHYSICS, which comprehends pure Mathematics and Natural Philosophy, he shall receive from them a CERTIFICATE to that effect, and he shall not be examined again in the same Department, as a condition of his taking the Degree of Master of Arts.

The papers for the Examinations under the old Regulations are the same as those in the corresponding subjects for the Degree of M.A. under the new Regulations, and take place at the same time.

Names must be entered, Certificates shown, and Fees paid on or before 2nd October 1894, and on or before 15th March 1895 for the Examinations in Autumn 1894 and Spring 1895 respectively.[1]

The Examination fee for the Degree of Master of Arts (with or without Honours) is *Three Guineas*, or *One Guinea* for each of the three Departments.

GRADUATION IN ARTS WITH HONOURS.

I. Students who have passed the Examinations in the three Departments embraced in the Course of Study prescribed for the Degree of Master of Arts, may, before taking the Degree, offer themselves for a further examination, with a view to Graduation

[1] See footnote, page 135.

with Honours; and that either in the same year in which they have completed the Pass or Ordinary Examinations, or in a future year. Also, any Student who desires to offer himself for Examination with a view to graduation with Honours, in any one or more departments, may proceed to such Honours Examination, after sufficient attendance on the classes in the department or departments in which he desires to offer himself, without having previously passed the Examination in such department or departments for the Degree of Master of Arts without Honours; and if such Student, in the opinion of the Examiners, fails to attain the standard for Honours in any department, but attains to the standard of the Examination for graduation without Honours, he shall be held to have passed in that Department for the Degree of Master of Arts, without Honours; but if, in any such department, he fails to attain to the standard of the Examination for graduation without Honours he shall not be entitled, until he shall have passed in that department, to the Degree of Master of Arts. And no person, without the permission of the Senatus Academicus, can be admitted to an Examination for *Honours*, after he has ceased, for more than one Winter Session, to be a Matriculated Student, in attendance on a class or classes in the University.

II. There are four departments for Graduation in Arts with Honours, in any one or more of which, subject to the preceding Regulation, Students may present themselves for further Examination, viz.:—

A. Classical Literature, .	Latin. Greek.
B. Philosophy, . . .	Logic. Metaphysics. Moral Philosophy.
C. Mathematics and Physics,	Pure Mathematics. Natural Philosophy.
D. Natural Science, . .	Geology. Zoology. Chemistry. Botany.

III. In each of the first three of the above-mentioned departments, viz., in Classical Literature, in Philosophy, and in Mathematics, there are *two* Grades of Honour, each representing, as nearly as possible, a uniform standard of qualification, and denominated respectively the First Class and the Second Class.

The papers for the Examinations are the same as those in the corresponding subjects for the Degree of Master of Arts

with Honours under the new Regulations, and the Examinations take place at the same time.

IV. In the department of Natural Science, there is only *one* class of Honours, and the examinations are held in March only.

Candidates may select any Two of the above Subjects, in which they will be subjected to examinations equivalent to those in the same subjects for the Final Examination for Bachelor of Science.

Candidates for Honours must enter their names on or before 15th March 1895.[1]

No one who has ceased for more than one Winter Session to be a Matriculated Student in attendance on a class or classes in the University can be admitted to an Examination for *Honours* without permission of the Senatus Academicus.

G. CHRYSTAL, LL.D.,
Dean of the Faculty of Arts, and Professor of Mathematics.

SPONSIO ACADEMICA TO BE SIGNED BY GRADUATES IN ARTS.

Nos qui Nomina subsignamus Magisterii titulo jamjam donandi Spondemus nos in omni debitae gratitudinis officio erga Universitatem Academicam Edinburgensem ad extremum vitae halitum perseveraturos.

GRADUATES IN ARTS.

HONOUR LISTS—1889-1894 *inclusively.*

The names of all Graduates in Arts with Honours previously to 1889 will be found in the List of Graduates of the University published in 1889.

The contractions Class., Phil., Math., and Nat. Sc., indicate the Departments of Classics, Philosophy, Mathematics, and Natural Science, respectively; and the Italic Numerals, i. and ii., indicate First and Second Class Honours respectively.

1889.

Class. i., Patrick Duncan, Harry Angus Alexander Kennedy, Thomas Ross Mills, Jas. Cruickshank Smith, John Tennant.

Class. ii., Robert Alex. Falconer, Alexander Harris Hutt.

Phil. i., Charles Mackinnon Douglas, William George Smith.

Phil. ii., David Walton Vaughan.

Math. i., James Ireland Craig, William Andrew Knowles, Jas. Fairbairn M'Kean.

Nat. Sc., Alexander Bremner, John

[1] See footnote, page 135.

Brown Clark, David Davidson, John Melvin Lowson, Robert Stewart M'Dougall, John Machray, John Hally Meikle, Harry Fisher Menzies, Alexander Gordon Wallace, John Young.

1890.

Class. i., John Maclennan, James Watt.

Class. ii., William Brereton Dennison, William Barron Stevenson.

Phil. i., Andrew Nisbet Bogle, Duncan Mackenzie, Thomas Dixon Rutherford, James Stewart.

Phil. ii., Henry Reynolds Brown, William Elmslie Wilkie Brown Dempster, Arthur Herbert Gray, Walter Hardie.

Math. i., Charles Tweedie.

Nat. Sc., James Adamson, William Lewis Martin, John Myles, Andrew Robertson Wilson.

1891.

Class. ii., John Adam Norrie, William Gibson Wedderspoon.

Phil. i., Henry Barker, John Davidson, Walter Charles Murray.

Phil. ii., Alexander Grieve, Wm. Allan Neilson, Alexander Joseph Pearse.

Math. i., John Forbes, Adam Mitchell Hunter, William Edward Philip, William Leslie Thomson, John Turner.

Nat. Sc., Robert Pollok, James Rodger Watson.

1892.

Class. ii., Peter Campbell, William Gracie, Hugh Ross Mackintosh.

Phil. i., Hugh Ross Mackintosh.

Phil. ii., Thomas Linton, William Joseph Pennell.

Math. i., James Mitchell.

Math. ii., Alexander Campbell Mackay.

Nat. Sc., John Smith Flett.

1893.

Class. i., Robert Gordon McKerron.

Class. ii., Walter Robertson Henderson, Hugh Lugton Jackson, Robert Montgomerie Samson.

Phil. i., Alexander Beith Macaulay, Hugh Pattison Macmillan, Lilias Maitland.

Phil. ii., William John Collier, Sydney Smith, William Finlayson Trotter.

Math. i., Neil Macmichael.

Math. ii., George Lowe Moffat, Frank Spence, Thomas Wilkie Wilson, James Wood.

Nat. Sc., Frank Spence, William White Taylor, William Watson.

1894.

Class i., George Liddell, Robert Lindsay Ross.

Phil i., James Black Baillie.

Math. i., Alexander George Burgess, John Watt Butters, Henry Herd, John Alexander Johnston.

Math. ii., Thomas Cleghorn Baillie.

Nat. Sc., John Watt Butters.

ORDINARY DEGREE OF MASTER OF ARTS.

1st August 1893.

Alexander Garibaldi Bertram. | Samuel Gilfillan Carmichael.
John Stevenson.

28th October.

Arthur Barrett. | James Paterson.
Hugh Gunn. | William Laing Stephen.
James Glen Oliphant. | William Swanney.
Andrew Tweedie.

13th April 1894.

Barnardo, Frederick Adolphus
Barrett, James Arthur Samuel
Burden, Duncan Macnab
Burt, William
Campbell, Norman
Christie, David
Clark, John Adamson
Comrie, John Dickson
Connel, David
Corson, Murray
Craig, James Andrew
Davidson, George Adam
Dick, Andrew William
Drysdale, John George
Foster, Arthur Austin
Franks, Ernest William
Gibson, Edward Francis
Godfrey, Robert
Gossip, Arthur John
Grey, Gavin
Hargreaves, James Herbert
Hart, Thomas
Helme, Thomas
Hutchison, William Elmsley
Kennedy, Susan Simpson Ralston
Ledingham, Adam
Little, John Davidson
M'Calman, Hugh
Macdonald, John Macrae
Mackay, David
Mackenzie, Robert
Macknight, John Samuel
M'Owan, James Bayne
Macpherson, Charles Angus
Masson, James
Mekie, David
Menzies, George Henderson
Middlemass, Saville
Miller, William Addis Stewart
Miln, David Anderson
Morrison, James
Morton, Harvey Holmes
Muir, Thomas Scott
Mutch, Andrew
Nisbet, John Miller
Pickles, John Edward
Pritchard, Percy Hubert
Pullar, Thomas
Purves, William Thompson
Robertson, Robert Mackay
Rose, John
Ross, David
Ross, Drummond Stewart
Ross, Harry MacDonald
Russell, Arthur Walker
Scott, James Hope
Simpson, James Young
Smith, William
Speirs, Alexander
Steuart, George Crurie
Stewart, David Fowler
Stuart, William James

Thomson, John
Walker, George Pryde
65 Wallace, James
Waters, Donald Bremner
White, George
Whitfield, John George

REGULATIONS FOR SCHOOLMASTER'S DIPLOMA.

1. Candidates for the Schoolmaster's Diploma must be graduates in Arts of a Scottish, English, or Irish University, or of some other University approved of by the Senatus and the University Court.

2. Each Candidate must have matriculated in the University for the year in which he presents himself for the Diploma.

3. Each Candidate must have attended the Class of the Theory, Art, and History of Education in the University.

4. Each Candidate must pass an Examination in the Theory, Art, and History of Education, to be conducted by the Professor of that subject, and an Examiner appointed by the University Court.

5. The subjects of Examination are announced annually in the *University Calendar*.

6. Each Candidate must give evidence either:—

(*a*.) That he has attended a Course of Practical Instruction in a Training College for Teachers; *or*

(*b*.) That he has gone through a complete course of Practical training in a Training College or Normal School for Teachers—the Course to extend over not less than five months, and to include Demonstration and Criticism Lessons.

7. Each Candidate must further satisfy the University of his practical aptitude as a Teacher by teaching a class in some special Subject or Subjects in which he has received instruction in the University, or in any Institution recognised by the University as qualifying for Degrees.

8. Each successful Candidate will receive a Diploma signed by the Vice-Chancellor of the University, or, in his absence, by the Principal or the Senior Professor. The Diploma will be delivered at a public meeting for conferring Degrees.

9. This Diploma is of two grades: (*a*) for Masters of Arts with Honours in any Department, testifying to their fitness for Secondary Schoolmasterships, and will state the Special Subjects in which the holder of the Diploma is qualified; (*b*) for those who have taken the ordinary Degree of M.A.

10. The Fee for the Diploma is £2, 2s.

The next Examination will begin on Friday, 29th March 1895,

at 9 o'clock, and Candidates are required to enter their names and pay the Fee at the *Matriculation Office* on or before 15th March.

The subjects are the same as for Graduation (which see, page 142), *with the addition* of Milton's "Tractate"; Quintilian's "Institutions," Books I. and II.; and "The History of Education, Hellenic and Roman," as in the Class Lectures, and the General Outlines of History, as in Quick's "Biographies," down to 1700.

A short Thesis will be prescribed to be written in the Examination Room on an Educational subject.

The Diploma has been conferred on the following Candidates:

A.—General Diploma and Diploma for Secondary Schools.

1890—Robert Stewart M'Dougall.
1891—Wm. Brereton Dennison, M.A.; Wm. Allan Neilson, M.A.
1892—John Edgar, B.A. (Oxon.).
1893—Arthur Wynne Shaw, B.A. (Yale); Albert Zoutmann, M.A. (Edin.); Alexander Wilmer Duff, M.A.
1894—Stewart Alan Robertson, M.A. (Edin.)

B.—General Diploma.

1888—D. Bogie, M.A.; J. S. Lawson, M.A.; C. H. Owen, M.A.
1889—Donald Brims, M.A.; Charles Smith, M.A.
1891—E. W. Hobbs, M.A.; D. M'Gregor, M.A.; E. Mitchell, M.A.
1892—Frederick Samuel Davies, B.A. (Lond.); John Brown Hamilton, M.A., B.D. (Glasg.); Thomas Miller Henry, M.A. (Edin.); James Livingston Linton, M.A. (Edin.); Edward Wilson, M.A. (Edin.).
1893—John Stevenson, M.A.

REGULATIONS FOR CERTIFICATE OF "LITERATE IN ARTS." (L.A.)

The following are the Regulations for this Certificate:—

1. The Certificate is open to persons who have passed the Preliminary Examination, and who have subsequently attended for two Winter or one Winter and two Summer Sessions the usual qualifying courses of instruction in the Faculty of Arts in subjects in which they wish to qualify.

2. The number of subjects of examination shall be four, and the standard of examination shall be the Graduation standard.

3. Of the subjects selected, two shall be from two of the groups mentioned in Section VII. (2) of the Arts Regulations, and the others may be any two mentioned in the Arts Regulations, with the addition of Music and Agriculture (the latter including a practical examination).

4. The fee for the Certificate of Literate in Arts is two guineas, or ten shillings and sixpence for each subject.

5. Candidates must be matriculated Students for the year in which they appear for examination.

The next Examination on Music will take place on 30th March 1895 from 9 to 12 o'clock, and in Agriculture in March 1895, at the same time as the Examination in that subject for the Degree of B.Sc.

Candidates who select Music as a subject will be examined on the Elements of Music (Notation, Measure, Scales, Modes, *Temps*, Forms, &c.); the Class Lectures, and the Professor's "Dictionary of Musical Terms, to which is prefaced an Introduction to the Elements of Music."

Harmony, its Theory and Practice; the Class Lectures, and Richter's "Treatise on Harmony."

History of Music, more particularly from Handel and Bach to the present time; the Class Lectures, Rockstro's "A General History of Music," and Riemann's "Catechism of Musical History" (Part II.: "History of Musical Forms").

Candidates who select Agriculture and Rural Economy will be examined on the Lectures of the Professor and the Saturday field excursions; Practical Laboratory work, to the extent involved by the use of the Laboratory Guide, "The Food of Plants," by A. P. Laurie, B.Sc., published by Macmillan & Co.; Wallace's "Farm Live Stock of Great Britain," 1893 edition—Crosby, Lockwood & Son; Fream's "Soils and their Properties"—Bell.

The names of Candidates must be given in, Certificates shown, and Fees paid for the Examinations in Autumn 1894, not later than 2nd October, and in Spring 1895 not later than 15th March.

The Certificate was conferred on the following Candidate in 1893-94:—

Charles MacIan Jack.

Competitive Examinations for Bursaries in Arts.

HONOURS LIST.

October 1893.

The following Candidates, entitled to distinction, are arranged in the Order of Merit :—

I.—Students Entering First Session.

(*Subjects of Examination*—English, Latin, Greek, and Mathematics, all on the Higher Standard.)

1. Peter Thomsen, Daniel Stewart's College.
2. Alexander Brown, George Watson's College.
3. William Mair, George Watson's College.
4. Thomas S. Macpherson, George Watson's College.
5. Chas. Macfie Campbell, George Watson's College.
6. Malcolm C. M'Alpin, George Watson's College.
7. Otto Rothfeld, George Watson's College.
8. William A. Curtis, George Watson's College.
9. David M. Aitken, George Watson's College.
10. John W. Stewart, Daniel Stewart's College.
11. David L. Norrie, George Watson's College.
12. John Lees, Ayr Academy.
13. James Lornie, Perth Academy.
14. Donald Banks, George Watson's College.
15. John M'F. Doig, Daniel Stewart's College.
16. Sidney G. Campbell, Academical Institute, Londonderry.
17. Alfred G. Hogg, George Watson's College.
18. James G. S. Jamieson, Ayr Academy.
19. Alexander G. Donald, George Watson's College. } Equal.
20. Arthur B. Keith, Royal High School. } Equal.
21. S. A. Kinnier Wilson, George Watson's College. } Equal.
22. Bruce M'Ewen, Fettes College. } Equal.
23. William Dunbar, George Watson's College.
24. Allan W. C. Menzies, Daniel Stewart's College.
25. Bernard H. Richardson, George Watson's College. } Equal.
26. David H. M'Gregor, George Watson's College. } Equal.
27. William Dick, George Watson's College.
28. Andrew M. Anderson, Daniel Stewart's College.
29. John H. Smith, Edinburgh Collegiate School.
30. John A. Gray, George Watson's College.
31. John M. A. Macmillan, George Watson's College.
32. Richard Bell, Dumfries Academy.
33. William D. Proudfoot, Perth Academy. } Equal.
34. Alexander Flint, George Watson's College. } Equal.
35. James S. Wilson, George Watson's College.
36. Joseph H. Cattanach, George Watson's College.
37. Alexander B. Noble, Edinburgh Institution.

II.—George Heriot Bursaries for Men.

(*Subjects*—1. Latin ; 2. Mathematics ; 3. English, and any two of the following :—4. Greek ; 5. French and German ; or 6. Higher Geometry. Candidates must reach the Pass Standard in two of 1, 2, and 3.)

1. Alexander Brown, George Watson's College.
2. M. C. M'Alpin, George Watson's College.
3. T. S. Macpherson, George Watson's College.
4. D. M. Aitken, George Watson's College.
5. J. W. Stewart, Daniel Stewart's College.
6. J. M'F. Doig, Daniel Stewart's College.
7. John Lees, Ayr Academy.
8. A. W. C. Menzies, Daniel Stewart's College.
9. James Lornie, Perth Academy.
10. A. G. Donald, George Watson's College.
11. J. G. S. Jamieson, Ayr Academy.
12. William Dick, George Watson's College.

III.—George Heriot's University Bursaries for Women.

(*Subjects*—1. Latin ; 2. Mathematics ; 3. English ; and any two of the following :—4. Greek ; 5. French ; 6. German ; 7. Higher Geometry. Candidates must reach the Pass Standard in two of 1, 2, and 3.)

Margaret H. H. Watson.
Mary P. G. Cook. } equal.
Helen Cameron.
Catherine G. Lowson.

Charlotte E. Tweedie.
Rosa Stoltz.
Isobel B. Mason.

IV.—Heriot St George's Training College Bursaries for Women.

(*Subjects*—Candidates must pass the Preliminary Examination for Degrees in Arts.)

Margaret H. H. Watson.
Agnes B. Blair.

Mary Brown.

V.—Prefferential Bursaries.

(*Subjects*—English (including History and Geography), Latin, Greek, and Mathematics. All on the Lower Standard.

1. Richard Bell, Dumfries Academy.
2. John Pattison, Canonbie Public School.
3. G. C. Rankin, George Watson's College.
4. D. H. Proudfoot, Wallace Hall Academy.
5. George Brown, Hawick Buccleuch Public School.
6. John Matheson, Falkirk High School.
7. W. A. Forsyth, Galashiels Academy.

VI.—Second Year Bursaries.

(*Subjects*—Latin, Greek, and Mathematics, and Gaelic for the Macpherson Bursary.

W. D. Ross.
D. A. Macnaughton.

M. N. G. Gray.

VII.—Third Year Bursaries.

(*Subjects*—Classics, Mathematics, and Logic, with Psychology, and also Gaelic for Macpherson Bursary.)

R. C. M. Bell. | Peter M'Gregor.

VIII.—Kelland Prize.

(*Subject*—Higher Geometry.)

J. C. Leighton. | A. H. Firth.

Class Prize Lists.

SUMMER SESSION, 1893.

HUMANITY.

SENIOR CLASS—GRADUATION HALF-COURSE.

Prizes and First-Class Certificates of Merit.—1. Steuart E. Pears, Edinburgh; 2. James C. Leighton, Dundee; 3. William M. Low, Leith.

Second-Class Certificates of Merit.—4. W. L. Webster, Leith; 5. Thomas S. Welsh, Liberton; 6. John M. Nisbet, Edinburgh; 7. James Reid, Edinburgh.

Latin Prose Composition.

Prizes.—1. James C. Leighton, Dundee; 2. Steuart E. Pears, Edinburgh.

Honourable Mention.—3. D. A. Callender, Trinity; 4. William M. Low, Leith; 5. James Reid, Edinburgh.

A course of Lectures on Roman Literature was given, but no competitive examination was held on this part of the work.

JUNIOR CLASS.

Prizes and First-Class Certificates of Merit.—1. Margaret Drummond, Edinburgh; 2. Jeannie W. Robertson, Edinburgh; 3. Lilian C. Graham, Edinburgh, and William Smith, Edinburgh—equal.

Second-Class Certificates of Merit.—5. C. Stuart Wallace, Traquair; 6. Wilhelmina M. Kerr, Edinburgh; 7. H. D. Sprague, Edinburgh; 8. Robert J. Philip, Edinburgh.

LATIN PROSE COMPOSITION.

HONOURABLE MENTION.—1. George C. Rankin, Edinburgh; 2. Margaret Drummond, Edinburgh; 3. William Smith, Edinburgh; 4. Catherine J. Drummond, Edinburgh; 5. Jeannie W. Robertson, Edinburgh; 6. H. D. Sprague, Edinburgh; Lilian C. Graham, Edinburgh, and George Henry Donald, Mertoun, St Boswells—equal.

THIRD CLASS.

A course of over forty Lectures was given in this class on books prescribed for Degrees with Honours, and on Roman Literature, but no competitive examinations were held.

FRANCIS R. JAMIESON, M.A., *Lecturer.*

GREEK.

SENIOR CLASS—GRADUATION HALF-COURSE.

PRIZE AND FIRST-CLASS CERTIFICATE OF MERIT.—1. S. E. Pears, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—2. Alastair Dallas, Edinburgh; 3. John S. Begg, Edinburgh.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Jessie Muir, Edinburgh, and James Reid, Edinburgh—equal; 3. James M. Macalister, Edinburgh.

THIRD CLASS.

No examinations were held.

A. DOUGLAS THOMSON, M.A., *Lecturer.*

MATHEMATICS.

SENIOR GRADUATION COURSE.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. C. Leighton, Dundee; 2. W. D. Ross, Caithness; 3. L. O. Critchley, Inverness; 4. A. H. Firth, Edinburgh, and W. C. Morton, Trinidad—equal; 6. M. N. G. Gray, Edinburgh; 7. S. E. Pears, Edinburgh.

SECOND-CLASS CERTIFICATES. — F. Dewar, Edinburgh; A. M. Gordon, Halifax, U.S.; D. W. Inglis, Northumberland; John Inglis, Edinburgh; W. H. Prentice, Edinburgh; A Spiers, Duns.

JUNIOR CLASS.

SECOND-CLASS CERTIFICATES.—D. W. Baird, Port-Glasgow; W. H. Houldsworth, Lancashire.

ADVANCED CLASS.

In this class the class work consisted of a course of Lectures embracing the Theory of Equations, Determinants, and parts of the Differential and Integral Calculus, with prescribed weekly exercises, but no examinations were held.

CHAS. TWEEDIE, M.A., B.Sc., *Lecturer.*

ANCIENT PHILOSOPHY.

HONOURS HALF-COURSE.

No competitive examinations were held.

R. P. HARDIE, M.A., *Lecturer.*

PSYCHOLOGY.

HONOURS HALF-COURSE.

No competitive examinations were held.

C. M. DOUGLAS, M.A., D.Sc., *Lecturer.*

WINTER SESSION, 1893-94.

LATIN.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. J. M. Moore, Lauder; 2. Beatrice M. T. Mills, Edinburgh; 3. Frank Dewar, Edinburgh; 4. W. W. M'Kechnie, Edinburgh; 5. W. J. Keith, Joppa.

SECOND-CLASS CERTIFICATES OF MERIT.—6. J. B. M. Lamb, Cumberland; 7. Marshall Gray, Edinburgh; 8. D. W. Inglis, Northumberland.

COMPOSITION PRIZE.—C. S. Edgar, Ayr.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Peter Thomsen, Leith; 2. Margaret Drummond, Edinburgh; 3. John Lees, Ayr (*Medallists*); 4. J. G. S. Jamieson, Ayr; 5. Sydney G. Campbell, Londonderry; and John M'F. Doig, Edinburgh—equal; 7. J. W. Stewart, Edinburgh; 8. Otto Rothfeld, Edinburgh; 9. William Mair, Edinburgh; 10. John M'Lean, Forres.

SECOND-CLASS CERTIFICATES OF MERIT.—11. T. A. Robertson, Edinburgh; 12. James Lornie, Dolphinton; A. R. Johnston, Forfar; and A. W. C. Menzies, Edinburgh—equal; 15. Charles Robertson, Roxburghshire; and W. D. Proudfoot, Perth—equal; 17. Henry Wilkie, Lochgelly; 18. W. A. Curtis, Edinburgh;

19. O. F. Lumsden, Edinburgh; 20. C. M. Campbell, Edinburgh; 21. Elizabeth W. Garrett, Prestonkirk; 22. Francis Esquilant, Penicuik; and Alexander Brown, Edinburgh—equal; 24. David Reid, Wick; 25. J. B. Meiklejohn, Thurso; and Richard Bell, Dumfriesshire—equal; 27. C. T. Macgregor, Mid-Lothian; and David Sutherland, Caithness—equal; 29. C. R. Lowdon, Kirriemuir; 30. J. W. Lowthian, North Shields; 31. G. Dundas Craig, Dundee; 32. J. M'C. A. Macmillan, Edinburgh; and H. J. G. Ross, Coupar-Angus—equal; 34. A. G. Hogg, Edinburgh; 35. Thomas Burnett, Edinburgh; 36. Æneas Rose, Blair Athol; 37. William Sturrock, Dundee; 38. D. B. Lawson, Edinburgh; 39. A. W. Dick, Edinburgh.

LATIN PROSE COMPOSITION.

PRIZES.—1. Peter Thomsen; 2. John Lees.

HONOURABLE MENTION.—3. William Mair; 4. James Lornie and Thomas A. Robertson—equal; 6. J. M'C. A. Macmillan; 7. J. G. S. Jamieson.

ROMAN HISTORY.

PRIZES.—1. John M'Lean and Peter Thomsen—equal.

HONOURABLE MENTION.—3. Margaret Drummond; 4. John Lees; 5. J. M'F. Doig; 6. Charles Robertson.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. William A. Dunnett, Kilmarnock; and Lilian C. Graham, Edinburgh (*Medallists*)—equal; 3. George Clarke, Falkirk; 4. George S. Dickson, Newport; 5. George Brown, Hawick; David Robertson, Stranraer; and Charlotte E. Tweedie, Berwickshire—equal; 8. Alexander Sharp, Galashiels; 9. Annie Macdonald, Ross-shire; 10. John Christie, Arbroath.

SECOND-CLASS CERTIFICATES OF MERIT.—11. James A. Glover, Dumfries; 12. Wm. Bryce, Dundee; 13. Alexander Crichton, Arbroath; 14. Edith Graham, Edinburgh; 15. Geo. Henry Donald, St Boswells; 16. Peter T. Hall, Edinburgh; 17. Walter A. Forsyth, Galashiels; 18. Michael Oldham, Edinburgh; 19. A. R. Cook, Fountainhall; 20. Alexander M. Dundas, Arbroath; 21. James Clark, Edinburgh; 22. Thomas W. Stewart, Thurso; 23. Adam Cameron, Coupar-Angus; 24. Peter Ward, Edinburgh; 25. A. Scott-Ballantyne, Galashiels; David M. Sutherland, Caithness; and Alexander Wilkie, Edinburgh—equal; 28. John Tait, Shetland; 29. William Pringle, Lanark; 30. Robert Riddle, Hawick.

PRIZES FOR LATIN PROSE COMPOSITION.—1. George S. Dickson, Newport; 2. Charlotte E. Tweedie, Berwickshire.

HONOURABLE MENTION.—3. George Clarke, Falkirk; and William A. Dunnett, Kilmarnock—equal; 5. Ronald Burness, Edinburgh; 6. Michael Oldham, Edinburgh; 7. James A. Glover, Dumfries; 8. William Bryce, Dundee; and Annie Macdonald, Ross-shire—equal; 10. George Brown, Hawick.

PRIZE FOR ROMAN LITERATURE AND HISTORY.—1. George Clarke, Falkirk.

HONOURABLE MENTION.—2. William A. Dunnett, Kilmarnock; and Lilian C. Graham, Edinburgh—equal; 3. Alexander Sharp, Galashiels.

H. C. GOODHART, M.A., *Professor.*

GREEK.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. James M. Moore, Lauder (*Medallist*); 2. George Liddell, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—3. Wm. D. Ross, Caithness; 4. D. A. Macnaughton, Kenmore; 5. Edward A. Braine, Edinburgh; 6. Wm. C. Morton, Trinidad.

COMPOSITION PRIZE.—Charles S. Edgar, Ayr.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Peter Thomsen, Leith; 2. Thos. S. Macpherson, Kingussie (*Medallist*); 3. Otto Rothfeld, Edinburgh; 4. John Lees, Ayr; 5. Wm. A. Curtis, Edinburgh; and Wm. Mair, Edinburgh—equal; 7. Sydney G. Campbell, Londonderry; 8. James G. S. Jamieson, Ayr; 9. Jessie Muir, Hawick.

SECOND-CLASS CERTIFICATES OF MERIT.—10. John M'Farlane Doig, Edinburgh; 11. James Lornie, Lanarkshire; 12. Thos. A. Robertson, Edinburgh; 13. Charles M. Campbell, Edinburgh; 14. Alfred G. Hogg, Edinburgh; 15. Bruce M'Ewen, Stonehaven; 16. John W. Stewart, Edinburgh; 17. John M'Lean, Forres; 18. Ethelwyn L. Lemon, Northumberland; 19. John M. A. Macmillan, Edinburgh; 20. Wm. Henry Smith, Edinburgh; 21. Alex. R. Johnston, Forfar; 22. Richard Bell, Dumfries; 23. David Sutherland, Caithness; 24. David Reid, Wick.

COMPOSITION PRIZES.—1. Peter Thomsen; 2. Wm. A. Curtis.

HISTORY PRIZE.—Thos. S. Macpherson. HONOURABLE MENTION.—Peter Thomsen.

LITERATURE PRIZE.—Thos. S. Macpherson. HONOURABLE MENTION.—Ethelwyn L. Lemon and Otto Rothfeld—equal.

The subject for Private Readings for the Winter Session 1894-95, will be the "Clouds" of Aristophanes (Merry's Edition).

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. William A. Dunnett, Kilmarnock (*Medallist*); 2. George Clark, Falkirk; 3. John Pattison, Dumfriesshire; 4. A. Scott-Ballantyne, Galashiels; 5. Alex. S. Crichton, Arbroath; 6. James A. Glover, Maxwelltown.

SECOND-CLASS CERTIFICATES OF MERIT.—7. G. Henry Donald, Berwickshire; 8. Wm. Smith, Edinburgh; 9. Andrew B. Taylor, Inverness; 10. Walter A. Forsyth, Galashiels; 11. D. M. Sutherland, Caithness.

COMPOSITION PRIZE.—1. James A. Glover. HONOURABLE MENTION.—2. William A. Dunnett; 3. George Clark.

HISTORY PRIZE.—George Clark.

LITERATURE PRIZE.—William A. Dunnett. HONOURABLE MENTION.—George Clark.

GRAMMAR PRIZE.—John Pattison. HONOURABLE MENTION.—A. Scott-Ballantyne.

S. H. BUTCHER, LL.D., *Professor.*

RHETORIC AND ENGLISH LITERATURE.

I. CLASS PRIZES AND CERTIFICATES OF DISTINCTION.

PRIZES. — 1. D. Nichol Smith, Edinburgh; 2. Arthur J. Gossip, Edinburgh; 3. C. S. Pennell, Edinburgh—(*Medallists*); 4. Peter M'Gregor, Perth; and R. L. Ross, Edinburgh—equal; 6. A. C. Paterson, Edinburgh; and James Y. Simpson, Edinburgh—equal; 8. John A. Clark, Perth; and David Mekie, Edinburgh—equal; 10. Robert Affleck, Galloway; 11. Margaret B. Smith, Edinburgh; 12. W. Burt, Dunfermline; 13. Francis Dewar, Edinburgh; 14. E. W. Franks, Yorkshire; and Frances H. Melville, Edinburgh—equal; 16. Hugh Mitchell, Campbelton; 17. Helen Cameron, Edinburgh; 18. W. J. Stuart, Edinburgh; 19. W. M'Clymont, Edinburgh; 20. George A. Davidson, Edinburgh; John Ewart, Dalbeattie; and Mabel Smith, Edinburgh—equal.

CERTIFICATES OF DISTINCTION.—23. G. W. Fairweather, Forfarshire; 24. David Connel, Burntisland; 25. Agnes S. Gibson, Dundee; 26. Robert Gray, Edinburgh; W. M'Kechnie, Edinburgh; and T. S. Muir, Selkirk—equal; 29. James Wallace, Mid-Lothian; 30. Alex. Sharp, Galashiels; 31. D. M. Burden, Dundee; and Alice Paterson, Edinburgh—equal; 33. Kate Frazer, Edinburgh; and George P. Walker, Edinburgh—equal; 35. Murray Corson, Edinburgh; 36. Marjory M. Frazer, Edinburgh; and J. B. Russell, Greenock—equal; 38. Helen Macfie, Whithorn; 39. Mary P. G. Cook, Dumfriesshire; 40. James A. Craig, Edinburgh; Alastair Dallas, Edinburgh; and R. M. Rowe, Edinburgh—equal; 43. Alex. Mair, Irvine; and H. M'D. Ross,

Inverness—equal ; 45. James D. M'Leod, Burntisland ; 46. James B. M'Owan, Dunblane ; James Masson, Edinburgh ; and W. L. Stewart, Galloway—equal ; 49. Mary A. Melville, Edinburgh.

II. ESSAY PRIZES AND CERTIFICATES OF DISTINCTION.

PRIZES.—1. Arthur J. Gossip, Edinburgh ; 2. G. Duncan Low, Edinburgh (*Medallists*) ; 3. D. Nichol Smith, Edinburgh ; 4. Frances H. Melville, Edinburgh ; 5. Mary P. G. Cook, Dumfriesshire ; 6. A. C. Paterson, Edinburgh ; 7. John G. Patton, U.S.A. ; 8. Mary A. Melville, Edinburgh ; 9. John A. Clark, Perth ; 10. Alastair Dallas, Edinburgh ; 11. Geo. A. Davidson, Edinburgh ; 12. David Connel, Burntisland ; 13. Robert Affleck, Galloway ; Francis Dewar, Edinburgh ; and Edward F. Gibson, Edinburgh—equal.

CERTIFICATES OF DISTINCTION.—16. Bruce M'Ewen, Stonehaven ; 17. J. G. Drysdale, Morpeth ; 18. Peter M'Gregor, Perth ; 19. C. S. Pennell, Edinburgh ; 20. R. J. Bryce, Edinburgh ; 21. W. M'Kechnie, Edinburgh ; 22. Mabel Smith, Edinburgh ; 23. Alex. Gavin, Grangemouth ; 24. Helen Cameron, Edinburgh ; 25. Nettie R. Duncan, Kinross ; and Margaret A. Heslop, Newcastle—equal ; 27. C. S. Wallace, Innerleithen ; 28. G. W. Fairweather, Forfarshire ; and John Smart, Edinburgh—equal ; 30. W. Burt, Dunfermline ; Alex. Darroch, Edinburgh ; and Mary M. M'Neil, Edinburgh—equal.

III. PRIZE FOR WORK IN OLD ENGLISH.

Charles S. Pennell, Edinburgh.

IV. PRIZES FOR POETICAL COMPOSITION.

G. Duncan Low, Edinburgh ; and W. D. Grant, Burghead.

DAVID MASSON, LL.D., *Professor.*

SANSKRIT.

SENIOR CLASS.

1. William Eggeling, Class Medal, Muir Prize of £4, 4s., First-Class Certificate of Merit ; 2. Charles S. Edgar, Muir Prize of £3, 3s., First-Class Certificate of Merit.

JUNIOR CLASS.

1. William D. Proudfoot, Class Medal, Muir Prize of £3, 3s., First-Class Certificate of Merit ; 2. Donald Lamont, Muir Prize of £2, 2s., First-Class Certificate of Merit.

J. EGGELING, Ph.D., *Professor.*

CELTIC LANGUAGES AND LITERATURE.

I. CELTIC CLASS.

PRIZES AND CERTIFICATES.—1. Charles Douglas M'Intosh, M.A., Logierait (*Medallist*); 2. Donald Lamont, Tiree; 3. Ella C. Carmichael, Edinburgh.

II. ADVANCED CELTIC.

PRIZES AND CERTIFICATES.—Donald MacInnes, M.A., Portree; and William Morrison, M.A., Edinburgh.

III. GAELIC CLASS.

PRIZES AND CERTIFICATES. — 1. Thomas S. Macpherson, Kingussie (*Medallist*); 2. Roderick Macleod, Stoer; 3. Donald Campbell, Kirkhill; and Daniel Munro, Kilteam—equal.

CERTIFICATES OF MERIT.—John Mackintosh, Fort-Augustus; George Ross, Stoer.

SPECIAL PRIZES.—£10, 10s., given by the Highland Society of London, Charles D. M'Intosh, M.A., Logierait; £5, 5s., given by the Edinburgh Perthshire Association for encouragement of research in Celtic Literature, Donald MacInnes, M.A., Portree. Book prizes given by John Mackay, Esq., Hereford, for excellence in Scottish Gaelic.—Celtic Class—Donald Lamont, E. C. Carmichael; Gaelic Class—T. S. Macpherson.

DON. MACKINNON, M.A., *Professor.*

LOGIC AND METAPHYSICS.

ADVANCED CLASS.

PRIZES.—1. J. B. Baillie, Haddington (Bruce of Grangehill and Falkland Prize); 2. S. H. Mellone, Kent (*Medallists*); 3. James Drever, Orkney; 4. C. W. I. Wardrop, Portobello.

HONOURABLE MENTION.—James Mackenna, Dumfries.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES—1. J. A. Johnston, Edinburgh; and W. D. Ross, Caithness—equal; 3. Robert Whyte, Edinburgh (*Medallists*); 4. Alexander Darroch, Edinburgh; 5. A. C. Paterson, Edinburgh; and C. S. Pennell, Edinburgh—equal; 7. D. S. Ross, Dollar; 8. E. W. Franks, Yorkshire; 9. Mabel M. E. Smith, Edinburgh; 10. C. S. Findlay, Thurso; 11. J. M. Macmillan, Edinburgh; and R. L. Ross, Edinburgh—equal; 13. Alice Paterson, Edinburgh; 14. E. F. Gibson, Edinburgh; 15. Alexander Macgregor, Dumfries; 16. C. C. Watson, Edinburgh; 17. W. J. Keith, Joppa; 18. D. M. Aitken, Dalkeith; and M. N. G. Gray, Edinburgh—equal.

SECOND-CLASS CERTIFICATES. — 20. Alexander Mair, Irvine; 21.

Alexander Easson, Dunfermline; George Maclennan, Ross-shire; Emily M. Milligan, Edinburgh; G. D. Shepherd, Uphall—equal; 25. Louisa R. Boyd, Edinburgh; 26. Robert Gray, Edinburgh; and Frank Young, Kirkcaldy—equal; 28. C. A. Wood, Yorkshire; 29. J. S. Begg, Edinburgh; Nettie R. Duncan, Kinross; and D. A. Macnaughton, Aberfeldy—equal; 32. J. C. Cuthbert, Dundee; and J. M. Nisbet, Edinburgh; 34. John Muir, Orkney; and R. M. Rowe, Edinburgh; 36. Wilhelmina M. Kerr, Edinburgh.

ANDREW SETH, LL.D., *Professor.*

MORAL PHILOSOPHY.

ADVANCED CLASS.

1. J. B. Baillie, Haddington; 2. James Mackenna, Dumfries (*Medallists*); 3. James Croskery, Londonderry.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Alexander Mair, Ayrshire; and James B. Russell, Greenock—equal; 3. Francis Dewar, Edinburgh (*Medallists*); 4. Margaret Drummond, Edinburgh (*with "Elizabeth Hamilton" Prize*); 5. Frances H. Melville, Edinburgh; 6. G. R. T. Ross, Arbroath; 7. Peter M'Gregor, Perth; 8. Jessie Muir, Hawick; and Marcus Dods, Edinburgh—equal; 10. Charles S. Pennell, Fifeshire; 11. John G. Patton, Albany, New York, U.S.A.; 12. Robert Whyte, Edinburgh; 13. William Burt, Dunfermline; 14. Alexander B. Macdonald, Old Cumnock.

FIRST-CLASS CERTIFICATES.—15. T. Helme, Kirkcudbright; 16. Isabella Matthew, Perth; 17. James Horne, Edinburgh; 18. D. Mekie, Edinburgh; 19. D. L. Guild, Dundee; D. G. Ross, Travancore; James Wallace, Cramond; and G. Alick Wilson, Inverness—equal; 23. T. S. Muir, Selkirk; 24. J. P. Alexander, Leslie; E. F. Gibson, Edinburgh; and H. M'D. Ross, Inverness—equal; 27. J. A. Clark, Perth; W. J. Stuart, Edinburgh; and G. P. Walker, Edinburgh—equal; 30. E. W. Franks, Redcar; 31. G. A. Davidson, Edinburgh; 32. C. M. Jack, Glenfarg; and J. H. Scott, Northumberland—equal; 34. James Craig, Cramond; 35. Murray Corson, Edinburgh; 36. Charles Macdonald, Edinburgh; 37. Thomas Hart, Edinburgh; 38. J. A. Craig, Edinburgh; G. W. M. Fairweather, Monifieth; and J. G. Smith, Dundee—equal; 41. John Muir, Orkney; 42. R. Morrison, Stornoway; and G. C. Steuart, Edinburgh—equal; 44. Alexander Cameron, Edinburgh; 45. Frank Reid, Alford; 46. J. G. Drysdale, Morpeth; and Wilhelmina M. Kerr, Edinburgh—equal.

SECOND-CLASS CERTIFICATES.—48. A. Ledingham, Forres; and C. A. Word, Yorkshire—equal; 50. J. Sutherland, Helmsdale; and Norman Campbell, Ross-shire—equal; 52. J. Thomson, Buck-

haven; 53. E. Braine, Edinburgh; 54. J. Rose, Nairn; 55. Catherine J. Drummond, Edinburgh; 56. Thomas Clark, Kirkcaldy; 57. G. H. Menzies, Inverkeithing, and A. W. Russell, Edinburgh—equal; 59. T. C. Baillie, Mid-Lothian; and P. J. Marshall, Peebles—equal; 61. G. R. Turner, London; 62. J. R. Murdoch, Dalkeith; 63. A. R. Calder, Portobello; 64. D. W. Morris, Edinburgh.

EXAMINATION ON KANT'S ETHICS.

PRIZES.—1. Alexander Mair, Ayrshire (*Medal*); 2. G. R. T. Ross, Arbroath; 3. F. Dewar, Edinburgh.

HONOURS.—P. M'Gregor, Perth; Thomas Helme, Kirkcudbright; J. B. Russell, Greenock.

H. CALDERWOOD, LL.D., *Professor.*

POLITICAL ECONOMY AND MERCANTILE LAW.

PRIZES.—1. John Linton, M.A., Leith (*Medal, and Merchant Company's Prize of* £10, 10s.); 2. P. Thomsen, Leith (*George Watson's Prize*); 3. Henry MacArthur, Edinburgh (*Daniel Stewart's Prize*); 4. David Maxwell, Forfarshire; George D. Shepherd, Ecclesmachan; and Janet E. R. Oliver, Edinburgh—equal; 7. W. L. Mathieson, Edinburgh; and Arthur J. Gossip, Edinburgh—equal; 9. D. Dunlop, Edinburgh; and Henry M'Pake, Edinburgh—equal.

FIRST-CLASS CERTIFICATES.—11. T. S. Muir, Selkirk; and W. L. Stewart, Kirkcudbrightshire—equal; 13. G. S. C. Stevenson, Portobello; and W. M. Marshall, Mid-Lothian—equal; 15. George A. Ross, Edinburgh; 16. George A. Davidson, Edinburgh; James Mackenna, Dumfries; Thomas Hart, Edinburgh; John R. Campbell, Edinburgh; and John Romanes, B.L., Edinburgh—equal; 21. H. D. Sprague, Edinburgh.

ESSAYS.—1. H. MacArthur (*Prize*); 2. W. M. Marshall and S. H. Mellone—equal (*Prize*); 4. Geo. Hart; 5. G. W. Ogilvy.

ECONOMICS FOR AGRICULTURAL STUDENTS.

FIRST-CLASS CERTIFICATES.—H. C. Stuart, S. Unwin, A. C. Welch.

J. SHIELD NICHOLSON, D.Sc., *Professor.*

THEORY, HISTORY, AND ART OF EDUCATION.

MEDAL AND FIRST-CLASS CERTIFICATE.—Maude E. Newbigin.

FIRST-CLASS CERTIFICATES (alphabetically arranged).—T. C. Alexander, Isabella Arnot, John Bell, Agnes B. Blair, Mary Brown, Florence M. C. Christie, George D. Craig, Frances Croal, Maria Findlay, Kate G. Fraser, Agnes S. Gibson, William Guthrie, C. T. MacGregor, John Maclean, John Rose, William W. Smith, Henry Wilkie, Jane Williams, Charles A. Wood.

S. S. LAURIE, LL.D., *Professor.*

MATHEMATICS.

ADVANCED HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. James A. MacDonald, Leith (*Medallist*); 2. T. W. Pickles, Keighley.

SECOND-CLASS CERTIFICATES.—T. C. Baillie, Mid-Lothian; R. C. M. Bell, Edinburgh; H. A. Braine, Edinburgh.

INTERMEDIATE HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. F. Cameron, Perthshire (*Medallist*); 2. Miss J. C. Macmillan, Edinburgh.

FIRST-CLASS CERTIFICATES.—Henry Herd, Leith; W. Jeffrey, Newcastle; H. Mitchell, Campbeltown; A. C. Smith, Dumfries.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES—1. M. C. M'Alpine, London; 2. A. Brown, Edinburgh; and J. C. Leighton, Dundee—equal (*Medallists*); 4. W. C. Morton, Trinidad; 5. A. Easson, Dunfermline; 6. A. M. Gordon, Halifax, N.S.; and Miss H. Maclie, Whithorn—equal; 8. Miss H. Cameron, Edinburgh; 9. T. S. M'Pherson, Kingussie; 10. S. G. Campbell, Londonderry; L. O. Critchley, Inverness; and B. M'Ewen, Stonehaven—equal; 13. D. M. Aitken, Edinburgh; G. Ednie, Edinburgh; and J. T. Young, Edinburgh—equal.

Miss J. A. Robertson would have obtained the thirteenth prize had she been attending the Class for the first time.

SECOND-CLASS CERTIFICATES.—R. Bell, Dumfries; J. Brown, Coupar, J. Cameron, Laurencekirk; W. Darling, Edinburgh; A. G. Donald, Edinburgh; W. Eggeling, Edinburgh; A. H. Firth, Edinburgh; J. Hay, Edinburgh; A. N. Henderson, Edinburgh; D. W. Inglis, Northumberland; D. A. M'Dougal, Kenmore; A. M'Gregor, Dumfries; Miss I. B. Mason, Dalmeny; A. W. C. Menzies, Edinburgh; G. Robertson, Edinburgh; H. W. Robinson, Northampton; P. A. Salomons, Edinburgh; W. Smith, Edinburgh; C. C. Watson, Edinburgh; F. Young, Kirkcaldy.

The Newton Bursary in Senior Mathematics has been awarded to J. C. Leighton, Dundee.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. B. Meiklejohn, Thurso; and D. Robertson, Stranraer—equal (*Medallists*); 3. G. S. Dickson, Newport; 4. Miss Mary P. G. Cook, Dumfries; 5. M. Oldham, Edinburgh; and H. Wilkie, Lochgelly—equal; 7. T. C. Alexander, Forfar; D. R. Armit, Arbroath; and G. D. Craig, Dundee—equal.

SECOND-CLASS CERTIFICATES.—J. Bell, Langholm; W. Blackadder, Broughty-Ferry; G. Brown, Hawick; Miss Margaret Brown,

Edinburgh; W. Bryce, Dundee; T. J. Burnett, Edinburgh; J. L. Chalmers, Dundee; J. Clark, Edinburgh; A. S. Crichton, Arbroath; J. C. Cuthbert, Dundee; W. D. M. Falconer, Dundee; G. G. Hay, Grantown-on-Spey; O. F. Lumsden, Edinburgh; G. P. M'Innes, Dundee; W. C. B. Munro, Thurso; D. Neilson, Edinburgh; J. W. Nelson, Edinburgh; J. B. Penman, Stranraer; W. Pringle, Lanark; J. P. Proctor, Dundee; W. Sturrock, Dundee; Annie C. Sutherland, Edinburgh; J. Tait, Shetland; A. B. Taylor, Inverness; J. G. Wallace, Arbroath; P. Ward, Edinburgh; A. Wilkie, Edinburgh; R. Young, Edinburgh.

The Kelland Memorial Prize in Pure Geometry, open to Students of the previous Session of Junior Mathematics, has been awarded to J. C. Leighton, Dundee.

G. CHRYSTAL, LLD., *Professor.*

NATURAL PHILOSOPHY.

ADVANCED HONOURS CLASS.

CERTIFICATES OF HONOUR.—1. T. C. Baillie and F. G. Smith.
SECOND-CLASS CERTIFICATES.—3. R. Bell and H. Walker.

ORDINARY CLASS—LOWER DIVISION.

PRIZEMEN AND CERTIFICATES OF HONOUR.—1. A. M. Gordon and J. C. Leighton—equal (*Medallists*); 3. L. O. Critchley; 4. R. Gray; 5. A. Hunter; 6. A. Easson; 7. A. H. Firth; 8. Miss J. Barron, W. Blackadder, G. Ednie, and H. W. Robinson—equal; 12. W. Darling; 13. H. N. Tod; 14. John Chalmers, R. V. Clark, J. Ewart, G. Hay, and C. Robertson—equal.

SECOND-CLASS CERTIFICATES.—19. J. Cameron, J. P. Proctor, and G. R. T. Ross—equal; 22. W. Kerr and G. Nelson—equal; 24. J. C. Cuthbert and J. Hay—equal; 26. D. M. Aitken (1704) and J. Miller—equal; 28. D. Christie and J. K. Graham—equal; 30. T. Helme; 31. Miss L. R. Boyd and C. S. Findlay—equal; 33. A. J. Baird, James Chalmers, and J. M. M'Alister—equal; 36. A. Dallas, J. J. Galbraith, S. Gray, and A. R. Yeoman—equal; 40. T. C. Fraser, J. C. Lees, P. E. Nobbs, W. M. Paul, and David Watson—equal; 45. D. Cameron; 46. W. P. Meldrum; 47.§W. Anderson, W. D. M. Falconer, E. R. Jones, J. J. Malloch, R. M. Rowe, and W. Smith—equal.

HIGHER DIVISION.

PRIZEMEN AND CERTIFICATES OF HONOUR.—1. D. M. Aitken (1133) and A. Brown—equal (*Medallists*); 3. M. C. M'Alpine.

PRIZE FOR THE ORDINARY EXAMINATIONS, *open to the whole Class.*—M. C. M'Alpine and A. Brown—equal (*Prizemen*).

PROX. ACCT.—A. M. Gordon and J. C. Leighton.

PHYSICAL LABORATORY.

THE FOLLOWING ARE HIGHLY COMMENDED.—A. Alexander, F. A. Barnardo, A. G. Burgess, A. H. Firth, E. R. Jones, P. E. Nobbs, F. M. Perkin, D. G. Ross, A. D. Russell.

The Newton Bursary is awarded to A. M. Gordon, the Neil Arnott Scholarship to A. D. Russell, and the Donald Fraser Bursary to A. Alexander.

P. G. TAIT, M.A., *Professor.*

INTERMEDIATE HONOURS.

MEDAL AND FIRST-CLASS CERTIFICATE—(1) John F. Cameron.
FIRST-CLASS CERTIFICATE—(2) James A. Macdonald.
SECOND-CLASS CERTIFICATES—(3) Miss J. C. Macmillan; (4) F. Guthrie Smith.

ADVANCED SCIENCE (DYNAMICS).

MEDAL AND FIRST-CLASS CERTIFICATE—(1) Alexander Cleghorn.
FIRST-CLASS CERTIFICATE—(2) Wm. Brown.

C. G. KNOTT, D.Sc., *Lecturer.*

HISTORY.

I. CLASS EXAMINATIONS—1. Eliza L. Henderson and J. M. Macmillan—equal (*Medallists*); 3. F. A. Barnardo and Lilias A. Johnstone—equal (*Prizes*); 5. Robert C. Henderson; 6. Henry Gamble; 7. Sarah W. Davison, Thomas Dawson, William H. Hamilton, and George MacLennan—nearly equal.

II. ESSAYS.—1. Henry Gamble, Robert C. Henderson, and Lilias A. Johnstone—equal (*Prizes*); 4. J. M. Macmillan; 5. Sarah W. Davison; 6. James G. Kyd.

JOHN KIRKPATRICK, LL.D., *Professor.*

FINE ART.

COUSIN PRIZE AND FIRST-CLASS CERTIFICATES.—George Hart and J. Wilson Lowthian—equal.

BALDWIN BROWN, M.A., *Professor.*

Preliminary Examination Papers for Degrees in Arts and Science.

The Papers for Preferential Candidates for Bursaries in October 1893 (*unless otherwise stated*), *were English, Lower Latin, Lower Greek, and Lower Mathematics.*

ENGLISH.

FIRST PAPER.

2nd October 1893.—9 *to* 11 *o'clock.*

(*Not more than* FIVE *questions to be answered. Questions* 1, 2, *and* 3 *must be attempted by all.*)

1. Write an essay of from two to three pages on one of the following subjects :—

(*a*) A day's excursion amidst scenery familiar to you.
(*b*) The value of games in the discipline of youth.
(*c*) Patriotism.

2. Paraphrase—

> " He's here in double trust :
> First, as I am his kinsman and his subject,
> Strong both against the deed : then, as his host,
> Who should against his murderer shut the door,
> Not bear the knife myself. Besides, this Duncan
> Hath borne his faculties so meek, hath been
> So clear in his great office, that his virtues
> Will plead like angels, trumpet-tongued, against
> The deep damnation of his taking-off :
> And pity, like a naked new-born babe,
> Striding the blast, or heaven's cherubim, hors'd
> Upon the sightless couriers of the air,
> Shall blow the horrid deed in every eye,
> That tears shall drown the wind."

3. Analyse the following sentence, and parse the words in italics—

If *to do were* as easy as to know *what* were good *to do*, chapels *had been* churches, and poor men's cottages princes' *palaces.*

4. What words in the first nine lines of Question 2 are of Classical or Romance origin? Discuss as fully as you can the derivation of any five of them.

5. Define and give examples of the following figures of speech : *Personification, climax, innuendo, hyperbole, metonymy.*

6. Explain the following terms : *Dramatic unities ; heroic couplet ; mock heroic poem ; allegory ; epic, lyric, and didactic poetry ; picturesque style ; rhetoric ; sophism.*

7. Correct the following faulty sentences :—

(*a*) The climate of Pau is perhaps the most genial and the best suited to invalids of any other spot in France.

(*b*) He seldom took up the Bible, which he frequently did, without shedding tears.

(*c*) They followed the advance of the courageous party step by step through telescopes.

(*d*) The sad faces and joyous music formed an incongruous sight.

(*e*) Amazed at the alteration in his manner, every sentence that he uttered increased her embarrassment.

2nd October 1893.—11 *to* 1 *o'clock.*

SECOND PAPER.

(*Not more than* EIGHT *questions to be attempted, and of these not more than* TWO *from each section.*)

A

1. What place do Chaucer, Langland, and Wiclif hold in the English literature of the fourteenth century? Give a short account of Langland's Vision of Piers the Plowman, and compare his aim as a poet with that of Chaucer.

2. What are the chief influences which laid the foundation of Elizabethan literature? Which of these are most clearly seen in the "Faerie Queene" of Spenser or in the plays of Shakespeare?

3. What are the characteristics of English literature in the eighteenth century? Write a short account of the life and work of the leading essayist or of the leading poet of Queen Anne's time.

4. Write a short account of the life of Sir Walter Scott. What is the character of his poetry? Compare him as a novelist with Thackeray.

B

5. Trace in the play the gradual declension of Macbeth from his original character of a loyal subject, a trusty comrade, and a noble soldier.

Or—

6. Analyse the character of Lady Macbeth. Quote, if you can, any passages from the play which will illustrate it.

7. Sketch at some length the part played by Rosalind in "As You Like It." Compare Rosalind with Celia.

8. Take the character of Lovel in the "Antiquary," or that of Henry Morton in "Old Mortality," and describe the part played by either of them in the story.

C

9. Describe Julius Agricola's invasion and conquest of Britain.

10. Give an account of King Alfred's struggle with the Danes, and state the terms of the Peace of Wedmore. What were the Danegeld and the Danelagh?

11. What were the most important effects produced upon English institutions and the English language by the Norman Conquest?

12. State shortly the work of Simon de Montfort in the establishment of a representative parliament. What additions were made to its power before the close of the fourteenth century?

13. Give an account of the struggle between England and Spain in the time of Elizabeth.

D

14. Locate important centres in the United Kingdom in which the following manufactures are carried on: linen, hardware and cutlery, pottery, woollen goods, carpets, furniture, and bicycles.

15. Name and locate six places in Spain and Portugal, two in Belgium, and two in Germany that are connected with important events in British history.

16. What European Powers have settlements in Asia and the Eastern Seas? Name the more important possessions belonging to each, and tell what are their chief products.

17. Name and locate in the United States of America seven important cities—one on the Pacific coast, two inland, and four on the Atlantic coast. For what is each noted?

Monday, 2nd April 1894.—9 *to* 11 *o'clock.*

FIRST PAPER.

(*Not more than* FIVE *questions to be answered. Questions* 1, 2, *and* 6 *must be attempted by all.*)

1. Write an Essay, three pages long, on either of these subjects:—

(1) The character of any one of the chief personages in *Kenilworth.*

(2) "All things that are,
Are with more spirit chasèd than enjoy'd."

2. Paraphrase :—

Why *should* a man, whose blood is warm within,
Sit like his grandsire *cut* in alabaster?
Sleep when he wakes? and creep into the jaundice
By being peevish? I tell *thee what*, Antonio,—
I love thee, and *it* is my love that speaks,—
There are a sort of men, whose visages
Do cream and *mantle* like a standing pond;
And do a wilful stillness entertain,
With purpose to be dressed in an opinion
Of wisdom, gravity, profound conceit;
As who should say, "I am *Sir* Oracle,
And when I ope my lips, let no dog *bark!*"
O my Antonio, I do know of these,
That *therefore* only are reputed wise
For saying nothing; when, I 'm very sure,
If they should speak, would almost damn those ears,
Which, hearing them, would call their brothers fools.

3. Parse the italicised words in the foregoing quotation. Analyse the sentence :—"In troth, Signior Guest, if I were to travel only that I might be discontented with that which I can get at home, methinks I should go but on a fool's errand."

4. Derive any *six* of the following words, which occur in the prescribed readings :—*Alchemist*, *cabal*, *cabalist*, *charlatanry*, *countess*, *earth*, *forfeit*, *heinous*, *manna*, *purchase*, *sage*, *wainscoted*.

5. Indicate and name the figures of speech contained in the following sentence :—"It will not be Richard Varney who will incur the displeasure of majesty, and the ridicule of the court, when the stateliest fabric that ever was founded upon a prince's favour melts away like a morning frostwork."

6. What is wrong in the English of each of the following sentences, and why?—

(1) Robert Dudley, Earl of Leicester, a very goodly personage, and singularly well featured, being a great favourite to Queen Elizabeth, it was thought, and commonly reported, that had he been a bachelor or widower, the Queen would have made him her husband.

(2) Prepared as he was to see an inauspicious and ill-looking person, the ugliness of Anthony Foster considerably exceeded what Tressilian had anticipated.

(3) Most of these were addressed to courtiers, whose names have long gone down the tide of oblivion; but some, to such as sound strangely in our ears, when connected with the ordinary matters of human life, above which the gratitude of posterity has long elevated them.

(4) Being one of their party, it was agreed that he should leave this along with them on Wednesday first.

Monday, 2nd April 1894.—11 *to* 1 *o'clock.*

SECOND PAPER.

(*Not more than* EIGHT *questions to be attempted, and of these not more than* TWO *from each section.*)

A

1. Name as many as you can of the persons in Chaucer's "Company at the Tabard"; and give a description of any two of them.

2. Name the author, and indicate the subject matter, of each of the following:—*The King's Quair, Leviathan, Oceana, The Hind and the Panther, Robinson Crusoe, The Tale of a Tub, The Gentle Shepherd.*

3. Name the chief Scottish poets of the sixteenth century, giving the title of one of the works of each. Enumerate the great literary writers of the reign of Queen Anne.

4. Take *either* Macaulay *or* Carlyle, and describe the leading events in his life, and remark on the characteristics of his style.

B

5. Indicate the leading points of ethical or moral teaching in the *Merchant of Venice.*

6. Explain the reference in each of the following:—"Two-headed Janus"; "Colchos' strand"; "the weeping philosopher"; "he makes a swan-like end"; "thou gaudy gold, hard food for Midas"; "I shot his fellow of the self-same flight"; "let us make incision for your love."

7. Give examples from *Kenilworth* of persons exemplifying one or more of the following qualities:—Mischief and humour, pedantry, brutality, hypocrisy, superstition, chivalry, ambition, vanity, attachment, joviality.

C

8. Write a brief expository note on any *four* of the following:—The Millenary Petition, The Articles of Perth, The Petition of Right, The National Covenant, The Confession of Faith, The Bloody Assize.

9. Describe the struggle for Parliamentary liberty in the reign of Charles I., in the time of Eliot; and give some account of the part played by Eliot therein.

10. Give an account of the founding of New England.

11. Give an estimate of Cromwell (1) as a soldier, (2) as a statesman.

12. Enumerate the most important effects, civil and religious, of the Revolution of 1688.

D

13. Locate *ten* of the following towns, and mention important events associated with each:—Newark, Huntingdon, Dorking; Selkirk,

Dundee, Cromarty; Londonderry; Brussels, Namur, Metz; Basel, Zürich; Delhi.

14. Contrast the present with the former importance of *five* of the following cities, mentioning in each case how the change can be accounted for:—Dunfermline, London, Calcutta, Venice, Constantinople, Antwerp, Alexandria.

15. Mention the British dependencies in Europe, and point out the interest that attaches to each. What are the British possessions in Africa? What natural products are obtained from Assam, Ceylon, North Borneo, and Australia?

16. Enumerate the Lakes in the basin of the St Lawrence. For what are Quebec, Toronto, and Montreal noted? Locate Lima, Santa Cruz, Buenos Ayres, Valparaiso.

LATIN.

Higher Standard.

Thursday, 5th October 1893.—9 *to* 12 *o'clock.*

I. For Latin prose—

The information was not lost on Cortes, who kept a strict eye on the movements of the Mexican envoys. Cheerful and active, he was ever where his presence was needed, encouraging the weak, stimulating the sluggish, and striving to kindle in the breasts of others the same courageous spirit which glowed in his own. At night he never omitted to go the rounds, to see that every man was at his post. On one occasion his vigilance had well-nigh proved fatal to him. He approached so near a sentinel, that the man, unable to distinguish his person in the dark, levelled his cross-bow at him, when fortunately an exclamation of the General, who gave the watchword (*tessera*) of the night, arrested a movement which might else have brought the campaign to a close, and given a respite for some time longer to the empire of Montezuma.—Prescott.

II. Translate—

Et Masgabæ regis Masinissæ filio, Puteolis nave egresso, præsto fuit obviam missus cum pecunia L. Manlius quæstor, qui Romam eum publico sumptu perduceret. Advenienti extemplo senatus datus est. Ibi is adulescens ita locutus est, ut quæ rebus grata erant, gratiora verbis faceret. Commemoravit, quot pedites equitesque, quot elephantos, quantum frumenti eo quadriennio pater suus in Macedoniam misisset: duas res ei ruberi fuisse, unam, quod regasset eum per legatos senatus quæ ad bellum opus essent et non inperasset, alteram, quod pecuniam ei pro frumento misisset. Masinissam meminisse regnum a populo Romano partum auctumque et multiplicatum habere, usu regni contentum scire dominium et jus eorum qui dederint esse. Sumere

itaque eos de se, non rogare æquum esse, neque emere ea ex fructibus agri ab se dati, quæ ibi populo Romano proveniant. Id Masinissæ satis esse et fore, quod populo Romano superesset. Cum iis mandatis a patre profectum postea consecutos equites, qui devictam Macedoniam nuntiarent gratulatumque senatui juberent indicare tantæ eam rem lætitiæ patri suo esse, ut Romam venire velit Jovique optimo maximo in Capitolio sacrificare et grates agere : id, nisi molestum sit, ut ei permittatur ab senatu petere.

Tum Salii ad cantus incensa altaria circum
Populeis adsunt evincti tempora ramis,
Hic juvenum chorus, ille senum ; qui carmine laudes
Herculeas et facta ferunt : ut prima novercæ
Monstra manu geminosque premens eliserit angues ;
Ut bello egregias idem disjecerit urbes,
Troiamque Œchaliamque ; ut duros mille labores
Rege sub Eurystheo fatis Junonis iniquæ
Pertulerit. "Tu nubigenas, invicte, bimembres,
Hylæumque Pholumque, manu, tu Cresia mactas
Prodigia et vastum Nemeæ sub rupe leonem.
Te Stygii tremuere lacus, te janitor Orci
Ossa super recubans antro semesa cruento ;
Nec te ullæ facies, non terruit ipse Typhœus,
Arduus arma tenens ; non te rationis egentem
Lernæus turba capitum circumstetit anguis,
Salve, vera Jovis proles, decus addite divis,
Et nos et tua dexter adi pede sacra secundo."
Talia carminibus celebrant.

III. (i.) Explain the following terms, adding Latin examples of each : Predicative dative, inceptive verb, complementary infinitive, historic infinitive, deliberative subjunctive.

(ii.) Give examples of the different constructions used with each of the following verbs, showing in each case the difference of meaning arising from the difference of construction : *persuadere*, *convenire*, *consulere*.

(iii.) Explain clearly the force of the subjunctive in the following Latin sentences :—

(*a*) Moriar, si magis gauderem, si id mihi accidisset.
(*b*) Id velim, mihi ignoscas, quod invita socru tua fecerim.
(*c*) Jugurtha oppidanos hortatur, mœnia defendant.
(*d*) Me miserum, qui non adfuerim.
(*e*) Ea qui conficeret, Trebonium legatum relinquit.

IV. Translate into Latin—

1. The town was handed over to the soldiers to be plundered.
2. To think that so wise a man should have made such a mistake !
3. Being more cautious than brave, he declined a conflict.
4. Jugurtha had learned to speak Latin.
5. Starting from Rome on the 26th of June, he arrived at Athens on the 8th of July.

Thursday, 5th April 1894.—9 *to* 12 *o'clock.*

1. Translate into English :—

Livy, xliv. Ch. 14, *from* "Rhodii superbe" *to* "patribus fuerit."

Tibullus, ii. 1, 37, *from* "Rura cano rurisque deos" *to*

"Rure levis verno flores apis ingerit alveo,
Compleat ut dulci sedula melle favos."

Scan the last two lines.

2. Translate into Latin prose :—

On the last day of March, Cæsar arrived in Rome. When the senate was summoned he began by stating his own case in the present quarrel, pointing out how Pompeius and the senate had combined to deprive him of advantages, especially the right to stand for the consulship in his absence, which had been bestowed on him by the people ; and he went on to contrast the many attempts he had made to obtain peace, with the reception those attempts had encountered. Then he came to the point. Would they unite with him to carry on the government? If they feared to do so, he would be no burden to them, but would carry it on by himself. Lastly, he invited them to select envoys to send to Pompeius ; not as a confession of weakness, but as a matter alike of justice and equity.—FOWLER.

3. (i.) Form (*a*) a frequentative verb from *dicere* ; (*b*) a desiderative verb from *parère* ; (*c*) diminutives from *homo* and from *oculus*. Give the meaning and one example each of (1) the noun-suffixes *-etum* and *-culum* ; (2) the adjective-suffix *-cus* ; (3) the adverb-suffix *-tus* ; (4) the prefix *in* as used (1) with adjectives and (2) with verbs.

(ii.) Show by examples (1) what cases are used with *mandare, carere, absolvere, circumdare, misereor, contingit* ; (2) what moods are used with *cum, primum, dummodo, forsitan, quoniam.*

(iii.) Translate with a brief note on the Syntax :—

(1) Comitia consulibus creandis habita sunt.
(2) Quis est qui dubitet quin hoc verum sit?
(3) Tu quidem macte virtute esto !
(4) Si civitas loqui posset, hac voce uteretur.

4. Translate into Latin :—

(1) The shrewd philosopher would often quote the saying that the more one has the more one always strives to have.
(2) "Fellow-soldiers," said the noble leader, "do not dream that I would sacrifice the lasting welfare of posterity to my own personal advantage."
(3) Instead of securing his fidelity, these favours served only to inflame the ambition of the Thracian, who was cunning enough to perceive that now at last an opportunity had arrived to attain his long-cherished object.

Lower Standard.

Monday, 2nd October 1893.—2 *to* 5 *o'clock.*

I. Translate:—

Et in Peloponneso adventus legatorum Romanorum, qui ex Macedonia in Achaiam ire jussi erant, exspectabatur; adversus quos ut præparata consilia haberent, Lycortas prætor concilium indixit. Ibi de Lacedæmoniis actum: ex hostibus eos accusatores factos et periculum esse, ne victi magis timendi forent quam bellantes fuissent. Quippe in bello sociis Romanis Achæos usos; nunc eosdem Romanos æquiores Lacedæmoniis quam Achæis esse, ubi Areus etiam et Alcibiades, ambo exsules, suo beneficio restituti, legationem Romam adversus gentem Achæorum ita de ipsis meritam suscepissent, adeoque infesta oratione usi essent, ut pulsi patria, non restituti in eam viderentur. Clamor undique ortus, referret nominatim de iis; et cum omnia ira, non consilio gererentur, capitis damnati sunt.

Parse, accounting for mood and case—*usi essent*, *referret*, and *capitis*.

II. For Latin prose:—

In Liguria nothing was achieved after that. For the Ligurians had first withdrawn into remote passes, and then, disbanding their army, had scattered hither and thither to their villages and fortresses. The consuls, too, wished to disband their own army, and consulted the senate about the matter. The senate ordered one of the two consuls to disband his troops, and come to Rome for the election of the annual magistrates; the other of the two they directed to winter with his legions at Pisa. There was a report that the Gauls were arming their young warriors, and it was not known into what district of Italy the horde would burst (*se effundere*).

III.—(i.) Write out the genitive and accusative singular of each of the following nouns: *aes*, *nemo*, *pavo*, *jusjurandum*, *litus*, *supellex*, *robur*, *carcer*.

(ii.) Give the comparative and superlative of each of the following words: *magnificus*, *facilis*, *malus*, *liber*, *senex*, *dives*, *infra*, *prope*.

(iii.) State the exact meaning of the following: *uter*, *uterque*, *quisque*, *quisquam*, *aliquis*, *quotusquisque*, *quidam*, *quidem*.

(iv.) Write out the 1st person singular perfect indicative active, the first supine (when a supine exists), and the present infinitive active of each of the following verbs: *spondeo*, *reddo*, *redeo*, *juvo*, *seco*, *algeo*, *pertimesco*, *frango*, *pango*, *pergo*; and give the perfect participle and present infinitive of the following: *metior*, *nascor*, *nanciscor*, *obliviscor*, *ordior*, *potior*. Give the meaning of each of the verbs in this question.

IV. Translate into Latin :—

1. I am envied, but you are hated.
2. He threatened to burn the town on the following night.
3. It was his duty to further the interests of his countrymen.
4. He convinced (*persuadere*) the king that the prisoners ought to be set at liberty.
5. My friend was unanimously acquitted of this charge.

Monday, 2nd April 1894.—2 *to* 5 *o'clock.*

1. Translate into English :—

Cæsar, Book viii. Ch. 40, *from* "Cæsar cum contra exspectationem" *to* "prohibebat oppidanos."

Parse the following words, accounting for the *case* of the nouns and the *voice* of the verbs : *oppidus, aqua, fossis, recedi, ferebatur.*

2. Write in Latin prose :—

Among those who saw the destruction of the city and were carried away to escape the barbarians was Pericles, now a boy of thirteen years of age. Of this flight Plutarch has related a tale which seems not unworthy to be repeated. When Xanthippus embarked on board ship to cross the gulf, his favourite dog was either forgotten or reached the shore too late to be taken on board. Unable to live deprived of his master, the dog sprang into the sea and swam the whole way behind the vessel. But the effort was too great for his strength ; on touching the island he fell down exhausted and died.

3. (i.) Conjugate with meanings: *haereo, veto, divido, gaudeo, vincio.*

(ii.) Write the ablative singular, genitive plural, gender and meaning of : *grex, apis, quercus, heres, radix.*

(iii.) Compare and give the meaning of : *tener, sacer, egregius, frugi.* Form and compare adverbs from *difficilis,* and *acer.*

(iv.) Make short sentences to show the difference between (1) *quisque* and *uterque* ; (2) between *ut* and *ne* after *timeo.*

4. Translate into Latin :—

(1) I am persuaded that you are not speaking the truth.
(2) Do you know when or in what place this battle was fought ?
(3) It does not concern us whether the house is new or old.
(4) There is no doubt but the soldiers will make a bridge over the river.
(5) The boy said to his brother, "I will come to help you, if I can."

GREEK.

Higher Standard.

Thursday, 5th October 1893.—1 *to* 4 *o'clock.*

1. Translate—

(i.)—Clytemnestra and Electra are told of Orestes' Death.

ΠΑΙΔΑΓΩΓΟΣ.

ὦ χαῖρ' ἄνασσα. σοὶ φέρων ἥκω λόγους
ἡδεῖς φίλου παρ' ἀνδρὸς Αἰγίσθῳ θ' ὁμοῦ.

ΚΛ. *ἐδεξάμην τὸ ῥηθέν· εἰδέναι δέ σου*
πρώτιστα χρήζω τίς σ' ἀπέστειλεν βροτῶν.

ΠΑ. *Φανοτεὺς ὁ Φωκεύς, πρᾶγμα πορσύνων μέγα.*

ΚΛ. *τὸ ποῖον, ὦ ξέν'; εἰπέ. παρὰ φίλου γάρ ὢν*
ἀνδρὸς, σάφ' οἶδα, προσφιλεῖς λέξεις λόγους.

ΠΑ. *τέθνηκ' Ὀρέστης. ἐν βραχεῖ ξυνθεὶς λέγω.*

ΗΛ. *οἲ 'γὼ τάλαιν', ὅλωλα τῆδ' ἐν ἡμέρᾳ.*

ΚΛ. *τί φῄς, τί φῄς, ὦ ξεῖνε; μὴ ταύτης κλύε.*

ΠΑ. *θανόντ' Ὀρέστην νῦν τε καὶ πάλαι λέγω.*

ΗΛ. *ἀπωλόμην δύστηνος, οὐδέν εἰμ' ἔτι.*

ΚΛ. *σὺ μὲν τὰ σαυτῆς πρᾶσσ' · ἐμοὶ δὲ σὺ ξένε,*
τἀληθὲς εἰπὲ, τῷ τρόπῳ διόλλυται;

ΠΑ. *κἀπεμπόμην πρὸς ταῦτα καὶ τὸ πᾶν φράσω.*
πορσύνων, "furthering."

(ii.)—After Death.

Τούτων δὲ οὕτω πεφυκότων, ἐπειδὰν ἀφίκωνται οἱ τετελευτηκότες εἰς τὸν τόπον οἷ ὁ δαίμων ἕκαστον κομίζει, πρῶτον μὲν διεδικάσαντο οἵ τε καλῶς καὶ ὁσίως βιώσαντες καὶ οἱ μή. καὶ οἳ μὲν ἂν δόξωσι μέσως βεβιωκέναι, πορευθέντες ἐπὶ τὸν Ἀχέροντα, ἀναβάντες ἃ δὴ αὐτοῖς ὀχήματά ἐστιν, ἐπὶ τούτων ἀφικνοῦνται εἰς τὴν λίμνην, καὶ ἐκεῖ οἰκοῦσί τε καὶ καθαιρόμενοι τῶν τε ἀδικημάτων διδόντες δίκας ἀπολύονται, εἴ τίς τι ἠδίκηκεν, τῶν τε εὐεργεσιῶν τιμὰς φέρονται κατὰ τὴν ἀξίαν ἕκαστος· οἳ δ' ἂν δόξωσιν ἀνιάτως ἔχειν διὰ τὰ μεγέθη τῶν ἁμαρτημάτων, ἢ ἱεροσυλίας πολλὰς καὶ μεγάλας ἢ φόνους ἀδίκους καὶ παρανόμους πολλοὺς ἐξειργασμένοι, ἢ ἄλλα ὅσα τοιαῦτα τυγχάνει ὄντα, τούτους δὲ ἡ προσήκουσα μοῖρα ῥίπτει εἰς τὸν Τάρταρον, ὅθεν οὔποτε ἐκβαίνουσιν.

II. (1) Decline—*ὀστοῦν, Αἴας, οὖς, Ἡρακλῆς, ἡδίων, σῶς.*

(2) Illustrate the different meanings and uses of the prepositions *παρά, πρός, ἐπί.*

(3) Give the main tenses in use of the Greek verbs meaning "to speak, say," "see," "bear, carry"; and parse *γνῷς, ἔς, ἑστᾶσι, ἴσθι, εἰπάτω, σχεῖν, χρῇ, τεθνεώς.*

(4) Notice any peculiarities in form, meaning, gender, or accidence of the following words: *κόρη, βάσανος, πρέσβυς, σίτος, λίθος, πρᾶος, ἄφθονος, ὠνεῖσθαι, ἐᾶν, διαιτᾶν, τετραίνειν.*

III. Translate into Greek—

(*a*) He showed them the nature and extent of the danger.

(*b*) They declared they were not to blame (αἴτιος) for what had happened, but the king himself.

(*c*) They did not know (use ἔχω) where to go; they thought they ought to cross the river.

(*d*) If the general had not been killed, the Greeks would not have conquered the enemy so easily.

(*e*) Men of to-day don't deny (ἀρνεῖσθαι) the truth of what he said.

(*f*) Brave men though they are, those standing on the walls fear that the city may be taken.

Thursday, 5th April 1894.—2 *to* 5 *o'clock.*

ISOCRATES. *Panathenaicus.*

1. Translate:—

(*a*) (§§ 185-7.) *θαυμάζω δ' εἴ τινες τὰς μάχας καὶ τὰς νίκας, τὰς παρὰ τὸ δίκαιον γιγνομένας, μὴ νομίζουσιν αἰσχίους εἶναι καὶ πλειόνων ὀνειδῶν μεστὰς ἢ τὰς ἥττας τὰς ἄνευ κακίας συμβαινούσας, καὶ ταῦτ' εἰδότες, ὅτι μεγάλαι δυνάμεις, πονηραὶ δὲ, πολλάκις γίγνονται κρείττους ἀνδρῶν σπουδαίων καὶ κινδυνεύειν ὑπὲρ τῆς πατρίδος αἱρουμένων. οὓς πολὺ ἂν δικαιότερον ἐπαινοῖμεν ἢ τοὺς περὶ τῶν ἀλλοτρίων ἑτοίμως ἀποθνήσκειν ἐθέλοντας καὶ τοῖς ξενικοῖς στρατεύμασιν ὁμοίους ὄντας· ταῦτα μὲν γάρ ἐστιν ἔργα πονηρῶν ἀνθρώπων, τὸ δὲ τοὺς χρηστοὺς ἐνίοτε χεῖρον ἀγωνίζεσθαι τῶν ἀδικεῖν βουλομένων θεῶν ἂν τις ἀμέλειαν εἶναι φήσειεν. ἔχοιμι δ' ἂν τῷ λόγῳ τούτῳ χρήσασθαι καὶ περὶ τῆς συμφορᾶς τῆς Σπαρτιάταις ἐν Θερμοπύλαις γενομένης, ἣν ἅπαντες ὅσοι περ ἀκηκόασιν ἐπαινοῦσι καὶ θαυμάζουσι μᾶλλον ἢ τὰς μάχας καὶ τὰς νίκας τὰς κρατησάσας μὲν τῶν ἐναντίων, πρὸς οὓς δ' οὐκ ἐχρῆν γεγενημένας· ἃς εὐλογεῖν τινὲς τολμῶσι, κακῶς εἰδότες, ὡς οὐδὲν οὕθ' ὅσιον οὔτε καλὸν ἐστι τῶν μὴ μετὰ δικαιοσύνης καὶ λεγομένων καὶ πραττομένων.*

EURIPIDES. *Phœnissæ.*

(*β*) *ὁ δ' ἦν ἔτ' ἔμπνους, πρὸς κασιγνήτην δ' ἰδὼν*
γραῖάν τε μητέρ' εἶπε Πολυνείκης τάδε·
ἀπωλόμεσθα, μῆτερ· οἰκτείρω δὲ σὲ
καὶ τήνδ' ἀδελφὴν καὶ κασίγνητον νεκρόν. 1445
φίλος γὰρ ἐχθρὸς ἐγένετ', ἀλλ' ὅμως φίλος.
θάψον δέ μ', ὦ τεκοῦσα καὶ σύ, σύγγονε,
ἐν γῇ πατρῴᾳ, καὶ πόλιν θυμουμένην
παρηγορεῖτον, ὡς τοσόνδε γοῦν τύχω
χθονὸς πατρῴας, κεἰ δομους ἀπώλεσα. 1450
ξυνάρμοσον δὲ βλέφαρά μου τῇ σῇ χερί,
μῆτερ (τίθησι δ' αὐτὸς ὀμμάτων ἔπι),
καὶ χαίρετ'· ἤδη γάρ με περιβάλλει σκότος.
ἄμφω δ' ἅμ' ἐξέπνευσαν ἄθλιον βίον.

HOMER. *Iliad*, Book III.

Or (γ) Ζεῦ πατερ, Ἰδηθεν μεδέων, κύδιστε, μέγιστε,
'Ηέλιός θ', ὃς πάντ' ἐφορᾷς, καὶ πάντ' ἐπακούεις,
ὑμεῖς μάρτυροι ἔστε, φυλάσσετε δ' ὅρκια πιστά ·
εἰ μέν κεν Μενέλαον 'Αλέξανδρος καταπέφνῃ,
αὐτὸς ἔπειθ' 'Ελένην ἐχέτω καὶ κτήματα πάντα,
ἡμεῖς δ' ἐν νήεσσι νεώμεθα ποντοπόροισιν ·
εἰ δέ κ' 'Αλέξανδρον κτείνῃ ξανθὸς Μενέλαος,
Τρῶας ἔπειθ' 'Ελένην καὶ κτήματα πάντ' ἀποδοῦναι,
τιμὴν δ' 'Αργείοις ἀποτινέμεν, ἥντιν' ἔοικεν,
ἥτε καὶ ἐσσομένοισι μετ' ἀνθρώποισι πέληται.
εἰ δ' ἂν ἐμοὶ τιμὴν Πρίαμος Πριάμοιό τε παῖδες
τίνειν οὐκ ἐθέλωσιν, 'Αλεξάνδροιο πεσόντος,
αὐτὰρ ἐγὼ καὶ ἔπειτα μαχήσομαι εἵνεκα ποινῆς,
αὖθι μένων, εἴως κε τέλος πολέμοιο κιχείω.

2. Parse and conjugate in full ἀκηκόασι, ἐπαινοῖμεν, θάψον. Write the 1st sing. fut. indic. of καθέζομαι, κλάζω, ὀφλισκάνω, κεράννυμι, χαίρω, χέω. Derive or give cognates to φροῦδος, σεμνός, δεῖπνον, δέσποινα. Analyse into their component parts the forms ἔλεξα, εἶην. Distinguish ἔπῃ, ἐπῇ, ἐφῇ, ἔφη, ἐπίῃ, ἔπιε. Give with examples the meanings of ἐπί and ὑπό in composition. Illustrate by examples the constructions of ὥστε and ἐφ' ᾧτε. Distinguish βουλεύειν, βουλεύεσθαι ; ἄρχειν πολέμου, ἄρχεσθαι πολέμου ; οὐ μὴ ποιήσεις, οὐ μὴ ποιήσῃς ; οὐκ ἂν γένοιτο ταῦτα, μὴ γένοιτο ταῦτα ; ἐπίσταμαι ποιεῖν, ἐπίσταμαι ποιῶν.

3. Translate into Greek :—

(1) The general gave orders that as many of the enemy as were captured without the walls should be put to death.
(2) We do not deny that we have betrayed the king.
(3) If Cyrus cross the river you cannot leave the city too soon.
(4) So far as I know he is much too wise to run such a risk.
(5) If my son had not died he would have benefited the state more than any other single person.
(6) They feared lest the enemy might invade the country without their knowledge.

LOWER STANDARD.

Tuesday, 3rd October 1893.—9 *to* 12 *o'clock.*

I. Translate :—

FILIAL PIETY.

Λέγεται γοῦν ἐν Σικελίᾳ (εἰ γὰρ καὶ μυθωδέστερόν ἐστιν, ἀλλ' ἁρμόσει καὶ ὑμῖν ἅπασι τοῖς νεωτέροις ἀκοῦσαι) ἐκ τῆς Αἴτνης ῥύακα πυρὸς γενέσθαι· τοῦτον δὲ ῥεῖν φασιν ἐπὶ τὴν ἄλλην χώραν καὶ δὴ καὶ πρὸς πόλίν τινὰ τῶν ἐκεῖ κατοικουμένων. τοὺς μὲν οὖν ἄλλους ὁρμῆσαι πρὸς φυγήν, τὴν αὑτῶν σωτηρίαν ζητοῦντας, ἕνα δέ τινα τῶν νεωτέρων, ὁρῶντα τὸν πατέρα πρεσβύτερον ὄντα καὶ οὐχὶ δυνάμενον ἀποχωρεῖν ἀλλὰ ἐγκαταλαμβανόμενον,

ἀράμενον φέρειν. φορτίου δ' οἶμαι προσγενομένου καὶ αὐτὸς ἐγκατελήφθη. ὅθεν δὴ καὶ ἄξιον θεωρῆσαι τὸ θεῖον, ὅτι τοῖς ἀνδράσι τοῖς ἀγαθοῖς εὐμενῶς ἔχει. λέγεται γὰρ κύκλῳ τὸν τόπον ἐκεῖνον περιρρεῦσαι τὸ πῦρ καὶ σωθῆναι τούτους μόνους, ἀφ' ὧν καὶ τὸ χωρίον ἔτι καὶ νῦν προσαγορεύεσθαι τῶν εὐσεβῶν χῶρον· τοὺς δὲ ταχείαν τὴν ἀποχώρησιν ποιησαμένους καὶ τοὺς ἑαυτῶν γονεῖς ἅπαντας ἐγκαταλιπόντας ἀπολέσθαι.

μυθωδέστερον, "bordering on the fabulous."

ἁρμόζειν, "to be fitting." ῥύαξ, "eruption." φορτίον, "burden."

Parse fully—ἀράμενον, ἐγκατελήφθη, ἐγκαταλιπόντας.

II. Translate into Greek :—

(*a*) He saw the same man as I did.
(*b*) The city was too large to be taken by so few soldiers.
(*c*) When they heard this the people on board did not know what they ought to do.
(*d*) Although they were brave, they feared the king had been killed.
(*e*) Is it not dreadful (δεινός) that we should be treated thus? (Use πάσχω.)

III. (1) Decline in full—λῃστής, κανοῦν, τέττιξ, κανών, μῦς, Πειραεύς, ἥρως, ναῦς, πατήρ.

(2) Write down the genitive and dative, singular and plural, of the adjectives χαριείς, μείζων, πολύς, πρᾶος, σῶς.

(3) Compare the adverbs formed from καλός, ῥᾴδιος, αἰσχρός.

(4) Parse the following words, and give their meanings—μιᾶς, σαυτοῦ, ἅττα, ἕ, ταὐτά, ὅτων, ἀλλήλω, τίνες, τις, ποῖος, ποιός, δίς, ποῦ, ποθέν, πῶς, ὁπότε.

(5) Write out in full—(*a*) The weak aor. indic. pass. of λύω ; (*b*) Strong aor. indic. act. of λείπω ; (*c*) Perf. indic. pass. of γράφω ; (*d*) Imperf. ind. act. of τιμάω ; (*e*) Pres. opt. pass. of ποιέω ; (*f*) Pres. imper. pass. of δηλόω.

(6) Write down the present and verb-stems of the verbs meaning "to place," "to make to stand," "to offer, give," "to send," and give in full the imperf. indic. act. of each.

(7) Conjugate the following verbs—γίγνομαι, λαμβάνω, ἀφικνοῦμαι, μίγνυμι, πράττω.

Tuesday, 3rd April 1894.—9 *to* 12 *o'clock.*

1. Translate :—Xenophon, "Cyropædia," Book III., (III. §§ 44-45) *from* "Ἄνδρες Ἀσσύριοι," *to* "πάντα ἀποβάλλουσιν ;

προσίεται = *submits to.*

2. Parse and conjugate in full ἔφυτε, ἐτράφητε, κέκτησθε, παραδώσετε, φεύγοντες, σώζονται. Write the 3rd sing. perf. imperative mid. or

pass. of τάττειν, προσλαμβάνουσιν, ἐτράφητε, προσίεται, ἀποβάλλουσιν, φαίνειν, σώζονται; also the 2nd sing. pres. indic. of βουλομένους; the 3rd sing. of ἔσεσθε; the 3rd plur. imperf. indic. of ἴστε. Give the Vocative sing. of αἰδώς, λεώς, γυνή, ἡγεμών, δράκων; the Accusative sing. of ὄρνις, ἔρις, πόλις, κλείς: the Dative plur. of εἰδώς, ἀγών, νικῶντες; also of λέων, δαίμων, δόρυ, δένδρον, οὖς, πατήρ, αὐτός. Write the Superlative of εὖ, μᾶλλον, σαφῶς, ταχέως, ῥᾳδίως, ἴσος, αἰσχρός, and the 3rd sing. imperfect indic. act. of ὁράω, ἐάω, ἐπίσταμαι, ἐφίσταμαι.

3. Translate into Greek :—

(α) Let us flee from those who do disgraceful things.

(β) Do not leave the children in danger.

(γ) The soldiers marched quickly in order that they might bring the news to Cyrus.

(δ) He said that it was not in his power to do this.

(ε) We have captured the vessels, crews and all.

MATHEMATICS.

Higher Standard.

Friday, 6th October 1893.—9 *to* 12 *o'clock.*

(*The full working of the questions in Algebra and Trigonometry must be shown.*)

1. If one side of a triangle be produced, then the exterior angle so formed is equal to the sum of the two interior and opposite angles, and the three interior angles are together equal to two right angles.

The difference of the angles at the base of a triangle is double of the angle between the altitude of the triangle and the bisector of its vertical angle.

2. The sum of the squares on the sides of a triangle is equal to twice the square on half the base together with twice the square on the median to the base.

The sum of the squares on the diagonals of any quadrilateral is double of the sum of the squares on the lines which join the middle points of the opposite sides.

3. On a given straight line describe a segment of a circle capable of containing an angle equal to a given angle.

Construct a triangle having given the base, the median to the base, and the vertical angle.

4. Parallelograms which have an angle of the one equal to an angle of the other, and the sides about these angles reciprocally proportional, are equal; and conversely.

Two lines drawn from the vertex of a triangle move so as to be always equally inclined to the bisector of the vertical angle; one meets the base of the triangle and the other its circumscribed circle: show that the rectangle contained by these lines is constant.

5. Write down, arranging strictly in descending powers of x and y—

(1) The most general rational integral function of x of the fourth degree;

(2) The most general rational integral function of x and y of the third degree;

(3) The most general rational integral homogeneous function of x, y, and z of the third degree.

Distribute—*i.e.*, multiply out, and arrange—

$$(1+x+x^2)(1+x^2+x^4)(1-x+x^2).$$

Find the H.C.F. and also the L.C.M. of—

$$14x^2+25xy-25y^2,\ 28x^2-41xy+15y^2,\ 21x^2-xy-10y^2.$$

6. Find the H.C.F. of $x^4-x^3-x^2-x-2$, and $3x^3-7x^2+3x-2$.

Simplify—

$$\frac{1-\dfrac{x}{1+x+x^2}}{1-\dfrac{x}{1-x+x^2}};\ \text{and}\ \frac{\dfrac{a}{b}-\dfrac{b}{a}}{\dfrac{a}{b}+1+\dfrac{b}{a}}\ \frac{1+\dfrac{b}{a}-\dfrac{b^2}{a^2}}{\dfrac{a}{b}+\dfrac{b^2}{a^2}}$$

7. Having given $\sqrt{3}=1{\cdot}7320508$, calculate to six places of decimals the value of $\dfrac{2-\sqrt{3}}{(\sqrt{2}-\sqrt{3})^2}+\dfrac{2-\sqrt{3}}{(\sqrt{2}+\sqrt{3})^2}$.

Solve—

$$5x^2+y^2+2x-7y-4=91\ ;\ 7x+3y=9.$$

8. Solve—

(1) $(l+m)x+(l-m)y=2(l^2+m^2)$; $(l-m)x+(l+m)y=2(l^2-m^2)$.

(2) $\dfrac{2x-1}{x+1}+\dfrac{3x-1}{x+2}=\dfrac{5x-11}{x-1}$.

Find the length and the breadth of a rectangle which is such that, if its length be increased and its breadth diminished each by 5 feet, the area is diminished by 45 sq. ft.; and if the length and the breadth be each increased by 19 feet, they are then to one another in the ratio of 15 to 13.

9. Prove that $\cos(\alpha-\beta)=\cos\alpha\cos\beta+\sin\alpha\sin\beta$, when α and β are positive angles less than 90° and α greater than β.

Prove that $\sin 2\alpha = 2.\dfrac{\cot\alpha+\tan\alpha}{\sec^2\alpha+\operatorname{cosec}^2\alpha}$.

Reduce to a single term $\sin\alpha+\sin 2\alpha+\sin 3\alpha+\sin 4\alpha$.

10. Prove that, in any triangle, the sides are proportional to the sines of the opposite angles.

In a triangle, $a=8$, $b=9$, $A=26^\circ\ 35'\ 15''$: find the remaining angles, having given log $2=\cdot3010300$; log $3=\cdot4771213$;

L sin 26° 35′ = 9·6507920; L sin 30° 13′ = 9·7018022;

L sin 26° 36′ = 9·6510444; L sin 30° 14′ = 9·7020190.

Friday, 6th April 1894.—9 *to* 12 *o'clock.*

1. Show that all the interior angles of any polygon together with four right angles are together equal to twice as many right angles as the figure has sides.

ABCDE and A*bcd*E are two polygons on the same base AE, of the same number of sides and towards the same parts, but the latter lying entirely inside the former. Prove that the sum of the angles at *b*, *c*, *d*, exceeds the sum of the angles at B, C, D by the angles BA*b* and DE*d*.

2. When are segments of circles similar? Show that similar segments on equal straight lines are equal.

A number of similar segments are described on bases all lying on a fixed straight line and all terminating in a given point. Find the locus of their centres.

3. Show that if a perpendicular be drawn from the corner of a right-angled triangle to the hypotenuse the triangles so formed will be similar to the whole triangle and to one another.

A, B are two given points on a given circle. Draw through B a straight line which shall meet the circle in C and the tangent at A in D and so that AB shall be a mean proportional between BC and BD.

4. If a straight line stand at right angles to each of two straight lines it shall be at right angles to their plane. Prove this.

ABCD is any tetrahedron. Show that there is in general one point and only one point on AD or AD produced which is equally distant from B and C.

5. Prove that

$$(a-b)^2(b-c)^2+(b-c)^2(c-a)^2+(c-a)^2(a-b)^2=(ab+bc+ca-a^2-b^2-c^2)^2.$$

Simplify $\dfrac{\dfrac{y^2}{x-y^2}}{\dfrac{x+y^2}{x-\frac{y^2}{x}}} - \dfrac{\dfrac{y^2}{x+y^2}}{\dfrac{x-y^2}{x+\frac{y^2}{x}}}$.

6. Discuss the system of equations : $\left.\begin{matrix} x+9y+6z=16 \\ 2x+3y+2z=7 \\ 3x+6y+4z=13 \end{matrix}\right\}$;

and solve

$$(\alpha)\quad \frac{a}{1-mx}-\frac{a}{1+mx}=c,$$

$$(\beta)\quad \left.\begin{matrix} x(x-y)=5 \\ y(x+y)=36 \end{matrix}\right\}.$$

7. What is the meaning of a^m? How is a meaning suggested for $a^{\frac{m}{n}}$? (m and n denoting whole numbers). Show by means of the laws of indices proved for whole numbers that $\sqrt[n]{a^m}=(\sqrt[n]{a})^m$

Calculate to two decimal places the value of

$$\left\{\sqrt[5]{2^2}\times(\sqrt[3]{3})^3\times\left(\frac{-1}{6}\right)^{29}\right\}^{35}.$$

8. What is meant by a root of an equation?
When is an equation a quadratic?
Show that a quadratic cannot have more than two roots.
If the roots of the equation $x^2-px+q=0$ differ by less than a quantity f, show that q must lie between $\frac{p^2}{4}$ and $\frac{p^2-f^2}{4}$.

9. Define the secant and tangent of an angle less than a right angle.
Prove geometrically that $\sec^2\alpha-\tan^2\alpha=1$.
Show that $\sec^6\alpha\tan\alpha-\tan^3\alpha\sec\alpha=\sec\alpha\tan\alpha(\sec^2\alpha+\tan^2\alpha)$.

10. Assuming the expressions for $\cos(A+B)$ and $\cos(A-B)$ in terms of the sines and cosines of A and B, express $\cos\alpha+\cos\beta$ as a product.

Prove $\cos\frac{\pi}{12}+\cos\frac{9\pi}{12}=\cos\frac{5\pi}{12}$.

11. Show that in any triangle the sides are proportional to the sines of the opposite angles.
ABC are three points in a straight line on a sea-beach. AB is 100 yards. To determine the distance of a boat D from A the angles CBD and CAD are measured and found to be 65° 42′ and 61° 13′ respectively. Find AD having given

L sin 65° 42′ = 9·959711,
L sin 4° 29′ = 8·893035.
log 11·66 = 1·0666.

Lower Standard.

Tuesday, 3rd October 1893.—1 *to* 4 *o'clock.*

(*The full working of the questions in Arithmetic and Algebra must be shown.*)

1. How many gallons of water will a cistern 6 ft. 9 in. long, 5 ft. 4 in. broad, and 3 ft. 6 in. deep, contain, supposing 1 pint of water to weigh 1¼ lb. and that a cubic foot of water weighs 1000 oz.?
A property was sold for £8325, and 7½ per cent. was lost on the purchase price: what would have been lost or gained per cent. by selling it for 9000 guineas?

2. Find the product, correct to four places of decimals (using contracted methods, if possible), of 3·492 and 17·3264735.
Find the true discount on a debt of £4120, 8s. 7d. due 9 months hence, reckoning simple interest at 4 per cent. per annum.

3. Find (as shortly as possible) the coefficient of x^6 in the product of $5x^7+3x^6-2x^4+8x^2+5$ and $3x^6-\frac{2}{5}x^4-3x^3+7x+2$.

What is the remainder when $2x^5-2x^4+3x^3-7x^2+5x-8$ is divided by $x+2$?

4. Simplify—

$$\frac{x+2y}{x^2+xy-6y^2}-\frac{x-y}{x^2+7xy+12y^2}+\frac{x-4y}{x^2+2xy-8y^2}.$$

Find the square root of $67x^2+9x^4-70x-30x^3+49$.

5. Solve—

$$\frac{6x+3y}{4}-\frac{3y-2x}{6}=7\tfrac{1}{4}-\frac{x+y}{3};\quad 3x+11y=61.$$

Three years ago a man's age was ten times that of his son; five years hence the son's age will be $\frac{11}{38}$ of his father's age. What are their present ages?

6. Solve—

$$(1)\quad 12x^2+13x-35=0.$$

$$(2)\quad \frac{6}{2x+3}-2=\frac{3x-5}{x-4}.$$

A certain number of two digits has its tens digit greater by 3 than its units digit, and when the number is multiplied by the units digit the product is 425. What is the number?

7. Two triangles are equal in every respect when they have two angles of the one respectively equal to two angles of the other, and the sides which are situated opposite a pair of equal angles in each triangle also equal.

Show that the straight line which bisects the vertical angle of an isosceles triangle bisects the base and is perpendicular to it.

8. Parallelograms on the same base and between the same parallels are equal.

ABCD is a parallelogram in which AB is longer than BC. Construct a rhombus equal in area to ABCD and having AB for one of its sides.

9. If a straight line be divided into any two parts, the sum of the squares on the line and on one of the parts is equal to twice the rectangle contained by the line and that part, together with the square on the other part.

AB is a straight line divided in C, so that rect. AB·BC=sq. on AC. Show that sq. on AB+sq. on BC=3 times sq. on AC.

10. The angles between a tangent to a circle and a chord drawn through the point of contact are respectively equal to the angles in the alternate segments of the circle.

One circle touches another internally at A; through A two lines are drawn to cut the one circle in P and Q, and the other circle in X and Y; show that PQ is parallel to XY.

11. If from an external point there be drawn to a circle a tangent and a secant, then the rectangle contained by the secant and the segment of it without the circle is equal to the square on the tangent.

ABC is a triangle obtuse-angled at C; AM and BN are drawn perpendicular to BC and CA respectively and meet BC and CA in M and N, and intersect when produced at O: show that rect. AO·OM = rect. BO·ON.

Tuesday, 3rd April 1894.—1 *to* 4 *o'clock.*

(*The full working of the questions in Arithmetic and Algebra must be shown.*)

1. Simplify $\dfrac{4\frac{1}{5}-\frac{2}{3}\text{ of }\frac{5}{8}}{3\frac{2}{3}-\frac{2}{5}+2\frac{3}{7}}$.

2. *A* sells goods to *B* for £166, 2s. 11d., and gains 10 per cent. on the price he originally paid for them. *B* sells the same goods again and loses 10 per cent. on the price at which he bought them. At what price did *A* buy the goods, and at what price did *B* sell them?

3. A gallon contains 277·274 cubic inches; a cubic foot of water weighs 1000 ounces. Find (correct to within the one-thousandth of a gallon) the number of gallons in a ton of water.

4. What is the length of each side of a square court whose area is 43752·0889 square feet?

5. What principal will amount, at simple interest, to £901, 13s. 4½d. in 4 years at 3½ per cent.?

6. Simplify $\dfrac{\dfrac{a+x}{a-x}+\dfrac{a-x}{a+x}}{\dfrac{a+x}{a-x}-\dfrac{a-x}{a+x}}$.

7. Resolve into their simplest factors the expressions:—

$$a^3xy^4+x^6y \text{ and } 3(x^2-y^2)-5(x-y)^2.$$

8. Find the highest common measure of $x^4-x^3+2x^2+x+3$ and x^4+2x^3-x-2.

9. Solve the equations:—

(i.) $\dfrac{3x+y}{32}=\dfrac{11x-5y}{22}$; $5y+1=8x$.

(ii.) $\dfrac{x}{2}+\dfrac{2}{x}=\dfrac{x}{3}+\dfrac{8}{x}$.

(iii.) $\dfrac{x+2}{x-2}-\dfrac{5}{6}=\dfrac{x-2}{x+2}$.

10. The product of two numbers is 750, and the quotient when one is divided by the other is $3\frac{1}{3}$. Find the numbers.

11. One side of a triangle being produced, the exterior angle is greater than either of the interior opposite angles.

From a given point there cannot be drawn more than two equal straight lines to meet a given straight line.

12. The square described on the side subtending the right angle of a right-angled triangle is equal to the sum of the squares described on the sides containing the right angle.

If the square on one side of a right-angled triangle is $\frac{1}{16}$th of the square on the hypotenuse, that side is $\frac{1}{3}$rd of the other side.

13. Divide a given straight line into two parts so that the rectangle contained by the whole line and one of the parts shall be equal to the square on the other part.

In a straight line, divided as above, the sum of the squares on the whole line and the less part will be equal to three times the square on the greater part.

14. The centre of a circle lies in the straight line drawn at right angles to a tangent from the point of contact.

If a chord of the greater of two concentric circles be a tangent to the less, the parts of the chord intercepted between the two circles are equal.

15. If two chords in a circle cut one another, the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other.

A is a point in *MN*, the common chord of two circles that intersect each other; *BAC* is a chord of the one circle and *DAF* a chord of the other. Show that the rectangle $BA \cdot AC$ is equal to the rectangle $DA \cdot AF$.

FRENCH.

Wednesday, 4th October 1893.—9 *to* 10.30 *o'clock.*

FIRST PAPER.

1. Translate into French :—

L'Empereur philosophe Marc-Aurèle.

Marcus Aurelius was born at Rome on the 26th of April, in the year 121 of the Christian era. He was nephew and son-in-law to his predecessor on the throne, Antoninus Pius. When Antoninus died, he was forty years old, but from the time of his earliest manhood he had assisted in administering public affairs. Then, after his uncle's death in 161, for nineteen years he reigned as emperor. The Barbarians were pressing on the Roman frontier, and a great part of Marcus Aurelius's nineteen years of reign was passed in campaigning.

His absences from Rome were numerous and long. We hear of him, above all, in the countries on the Danube, where the war with the Barbarians was going on—in Austria, Moravia, Hungary. In these countries much of his "Journal" seems to have been written; parts of it are dated from them; and there, a few weeks before his 59th birthday, he fell sick and died. The record of him on which his fame chiefly rests is the record of his inward life, his "Journal" or "Thoughts," for by both these names has the work been called. Perhaps the most interesting of the records of his outward life is that which the first book of this work supplies, where he gives an account of his education, recites the names of those to whom he is indebted for it, and enumerates his obligations to each of them. "From my mother I learnt piety, and beneficence, and abstinence not only from evil deeds but even from evil thoughts; and further, simplicity in my way of living, far removed from the habits of the rich." "From my tutor I learnt (hear it, ye tutors of princes!) endurance of labour, and to want little, and to work with my own hands, and not to meddle with other people's affairs, and not to be ready to listen to slander."

Of the outward life and circumstances of Marcus Aurelius, beyond these notices which he has himself supplied, there are few of much interest and importance. There is the fine anecdote of his speech when he heard of the assassination of the revolted Ovidius Cassius, against whom he was marching. "He was sorry," he said, "to be deprived of the pleasure of pardoning him." And there are one or two more anecdotes of him which show the same spirit.

2. Translate into French:—

(*a*) You blame him in vain: he will not listen to you.
(*b*) One may, by yielding, show wisdom.
(*c*) This matter is going from bad to worse.
(*d*) Pass in front of me, please.
(*e*) I admire his goodwill towards you.
(*f*) I have no fault to find with your conduct.

Wednesday, 4th October 1893.—10.30 *to* 12.30 *o'clock.*

SECOND PAPER.

I.

1. Translate into English:—

(*a*) En effet, l'inspiration d'Addison devint bientôt prépondérante au "Babillard," et peu à peu en modifia le caractère de la façon la plus heureuse. Steele avait de l'esprit, de l'observation, de l'imagination, un style aisé et élégant; les pages de son journal qu'il rédigea seul ne sont pas sans des passages de très agréable lecture, et l'on y peut déjà trouver en germe tout le programme qui fut développé plus tard par les deux amis dans la suite du "Babillard" et dans le "Spectateur." Mais cela est vague et incertain chez Steele; il a des lueurs plutôt que des vues;

si l'invention chez lui est heureuse et abondante, la mise en œuvre n'est pas à la hauteur de l'invention ; son talent incomplet le laisse à moitié route. Il tâtonne et piétine dans tous les sens comme quelqu'un qui veut aller à plusieurs endroits à la fois. Cette incertitude est très sensible dans le début du "Babillard" ; le journal, en étant à la fois politique et littéraire, n'est véritablement ni l'un ni l'autre ; Steele touche à tout sans rien approfondir ; il a promis à ses lecteurs trop de choses, et chaque numéro est un composé de pièces et de morceaux où rien ne ressort et ne fait saillie. Tout cela est touffu et confus. Addison élagua (*to thin*) dans les broussailles de son ami et y donna de l'air. Il comprit qu'il fallait se décider ou pour un journal politique ou pour un journal littéraire, que la politique avait déjà bien assez de représentants dans une époque livrée tout entière aux luttes de parti ; et surtout il vit—ce que ses prédécesseurs avaient seulement entrevu—que le journal littéraire avait un rôle spécial à jouer et une influence nouvelle à exercer sur la société qui l'environnait. Peu à peu donc la politique disparut du "Babillard" et laissa le champ plus libre aux développements ; la peinture des caractères et des travers sociaux, l'étude des œuvres littéraires, les discrètes et ingénieuses dissertations de morale, y prirent chaque jour plus de place ; et à mesure que la collaboration des deux amis se faisait plus intime et que le talent d'Addison, assuré maintenant de sa voie, se développait et se sentait plus fort, le "Babillard" devint ce qu'on a justement appelé un "journal de mœurs," présentant dans une série de charmants tableaux de genre une image fidèle, mais bienveillante, de la Société, et n'oubliant jamais, sous une forme attrayante et aimable, d'insinuer doucement quelque délicate et utile leçon. Steele, avec une surprise heureuse, ne reconnaissait plus son enfant.

(*b*) (*Trufaldin has cut a stick to thrash Mascarille and his master.*)

Tru. Ecoute : sais-tu bien ce que je viens de faire ?
Mas. Non, mais si vous voulez, je ne tarderai guère,
Sans doute, à le savoir.
Tru. D'un chêne grand et fort,
Dont près de deux cents ans ont fait déjà le sort,
Je viens de détacher une branche admirable,
Choisie expressément de grosseur raisonnable,
Dont j'ai fait sur-le-champ, avec beaucoup d'ardeur,
(*Il montre son bras*)
Un bâton à peu près . . . oui, de cette grandeur,
Moins gros par l'un des bouts, mais plus que trente gaules
(*stouter than thirty wands*),
Propre, comme je pense, à rosser les épaules ;
Car il est bien en main, vert, noueux et massif.
Mas. Mais pour qui, je vous prie, un tel préparatif ?
Tru. Pour toi premièrement ; puis pour ce bon apôtre
Qui veut m'en donner d'une et m'en jouer d'une autre,
Pour cet Arménien, ce marchand déguisé
Introduit sous l'appât d'un conte supposé.

II.—Grammar.

1. Give, in the first person singular only, any five simple tenses of *aller*, *venir*, *vouloir*, *faire*.

2. Explain (*a*) the formation of the conditional mood; (*b*) wherein the two tenses of the conditional differ in meaning from the two tenses of the future indicative; (*c*) when the conditional is used in principal clauses; (*d*) when the conditional is used in dependent clauses.

3. (*a*) Explain wherein the subjunctive differs in meaning from the indicative; (*b*) give three conjunctions after which it is always used; (*c*) quote five verbs after which it is always used; (*d*) quote three conjunctions after which are used, sometimes the subjunctive, sometimes the indicative.

4. Explain the agreement of the past participle (*a*) when the auxiliary is *être*: (*b*) when the auxiliary is *avoir*: (*c*) when the verb is reflective; (*d*) quote two exceptions to the rule of agreement when the auxiliary is *avoir*.

5. (*a*) After what preposition is found the verb-form in *-ant?* (*b*) What verb-form is usually found after prepositions? (*c*) In what manner may the English verbal noun ending in *-ing* be rendered? (*d*) Wherein differ the French present participle and the French verbal adjective?

III.—Literature, History, and Philology.

Reply to any *one* of the following questions:—

1. What do you know about Molière, his time and work?

2. What do you know of "Les Précieuses"?

3. Give approximately the date of the birth and death of Rabelais, mention his principal works, and state what influence they had on French Literature.

4. Give ten words of Italian or German origin in French, with their meaning.

5. Explain the etymology of *frêle*, *fragile*, and of *pâtre*, *pasteur*.

6. Give the names of the last seven kings of the House of Valois, with a short note on each.

Wednesday, 4th April 1894.—9 *to* 10.30 *o'clock.*

FIRST PAPER.

Translate into French:—

(*a*) When Alfred became king at twenty-two years of age, he proved himself as good a warrior as he was a student. He fought courageously against the Danes, and was more than once victorious; but they always came back, and in the fourth year of his reign they took him by surprise, and so dispersed and routed his soldiers that he was compelled to hide for his life. For some time King Alfred disguised him-

self as a peasant, and took refuge in the cottage of one of his herdsmen. When the search for him became less active, Alfred gradually collected some of his followers on a small spot of ground in the centre of a bog. He occasionally issued from this place and successfully attacked small parties of Danes, and these successes encouraged him to strike a decisive blow. Before attempting this, however, he wanted to find out the exact condition of the enemy; and for this purpose, being a good musician, he disguised himself as a harper, and entered their camp. His plan succeeded so well that he was even admitted to the tent of the Danish leader Guthrum, to whom he sang and played.

(*b*) (1) You have answered neither me nor your father.
(2) Why have you punished him? He has done nothing bad.
(3) How tall you are, if you are only fifteen.
(4) By dint of hard work you may succeed in gaining your object.
(5) You will hardly believe me, but I saw it with my own eyes.
(6) People will grumble, do what you may.

Wednesday, 4th April 1894.—10.30 *to* 12.30 *o'clock.*

SECOND PAPER.

Translate into English:—

(*a*) Cependant quelle a été la suite de ces déclarations et de nos ménagements respectueux? Déjà un grand nombre de troupes nous environnait, il en est arrivé davantage, il en arrive chaque jour, elles accourent de toutes parts. Trente-cinq mille hommes sont déjà répartis entre Paris et Versailles. On en attend vingt mille. Des trains d'artillerie les suivent. Des points sont désignés pour des batteries. On s'assure de toutes les communications. On intercepte tous les passages; nos chemins, nos ponts, nos promenades sont changés en postes militaires. Des événements publics, des faits cachés, des ordres secrets, des contre-ordres précipités, les préparatifs de la guerre, en un mot, frappent tous les yeux et remplissent d'indignation tous les coeurs.

Messieurs, quand il ne s'agirait ici que de nous, quand la dignité de l'Assemblée nationale serait seule blessée, il ne serait pas moins convenable, juste, nécessaire, important pour le roi lui-même, que nous fussions traités avec décence, puisque enfin nous sommes les députés de cette même nation qui seule fait sa gloire, qui seule constitue la splendeur du trône; de cette nation qui rendra la personne du roi honorable à proportion de ce qu'il l'honorera plus lui-même. Puisque c'est à des hommes libres qu'il veut commander, il est temps de faire disparaître ces formes odieuses, ces procédés insultants qui persuadent trop facilement à ceux dont le prince est entouré que la majesté royale consiste

dans les rapports avilissants du maître à l'esclave ; qu'un roi légitime et chéri doit partout et en toute occasion ne se montrer que sous l'aspect des tyrans irrités ou de ces usurpateurs tristement condamnés à méconnaître le sentiment si doux, si honorable de la confiance.—MIRABEAU.

(*b*) Et nos vieux régiments, croisant la baïonnette,
Marchèrent, les tambours devant, l'aigle au milieu,
Vers Pratzen, où tonnaient trente bouches à feu.
Quand ces grands mouvements sous le canon s'opèrent,
C'est terrible ! Combien de braves gens tombèrent
Dans cette plaine où rêve aujourd'hui le berger !
Castex, le colonel du treizième léger,
Un officier superbe et de très haute taille,
Fut frappé d'une balle au front, et la mitraille
Enleva d'un seul coup un groupe de tambours.
N'importe ! Sur Pratzen, dont brûlaient les faubourgs
Et dont les grenadiers du czar gardaient l'entrée,
Nos petits fantassins, en colonne serrée,
S'avançaient lentement, commandés par Suchet ;
Et, dans cet ouragan formidable, on marchait :
Car, pour vaincre, il fallait prendre cette bourgade.
—COPPÉE.

II. GRAMMAR.

1. Explain the grammatical use of the italicised words in the following sentences : (*a*) *il est* arrivé d'importantes nouvelles ; (*b*) il n'y a personne ici qui *ne* le *sache* ; (*c*) il a *beau* parler, personne ne l'écoute ; (*d*) il est plus âgé que vous *ne* croyez ; (*e*) rien *de* nouveau aujourd'hui.

2. What difference of meaning is there between : *ces articles se font en Ecosse*, and *ces articles sont faits en Ecosse* ; between *le jour* and *la journée*, *le langage* and *la langue*, *le pouvoir* and *la puissance* ?

3. Use in the plural : *c'est lui*, *un bel enfant*, *un habit bleu-foncé*, *un sourd-muet*, *timbre-poste*, *arc-en-ciel*, *garde-chasse*.

4. Explain the agreement and non-agreement in the present participles and the past participles of the following sentences : *tous les animaux vivants ; tous les animaux vivant d'herbe ; elle s'est coupé le doigt ; elle s'est coupée au doigt ; que de fautes vous avez faites ; que de gloire il a gagné.*

5. State when *jusqu'à ce que* takes the indicative, when the subjunctive. Give one example for each case.

6. Translate into French :—What a beautiful day ! What does he say (in two ways) ? What has happened ? I do not know what you mean. What is his profession ? On what do you base your supposition ?

III. Literature and Philology.

(*Only One of the following Questions is to be attempted.*)

1. Explain (*a*) the formation of the feminine forms of *faux*, *mou*, *absous* : (*b*) the origin of the adverbial suffix *-ment*, and why it is added to the feminine form of the adjective ; (*c*) the seemingly irregular forms : *prudemment*, *savamment*.

2. Explain etymologically the form and meaning of any ten of the following words, taken from the above two passages : *cependant*, *suite*, *environnait*, *arriver*, *répartir*, *artillerie*, *batterie*, *promenades*, *messieurs*, *député*, *entourer*, *chérir*, *baïonnette*, *taille*, *faubourg*, *avancer*.

3. Explain historically (*a*) the masculine gender of *honneur*, *labeur*, *amour* : (*b*) the presence of the letter "h" in *huit*, *bonheur*, *haut* ; (*c*) the reflective use of verbs to express passive meaning.

4. State the influence of Francis I., or of Louis XIV., or of the wars of Napoleon I., on French Literature.

5. How would you distinguish the drama of the classical school and that of the romantic school in France?

6. Name some of the most important orators of the great French Revolution, and indicate their respective activity and influence.

GERMAN.

Wednesday, 4th October 1893.—2 *to* 3.30 *o'clock.*

FIRST PAPER.

(*Extra marks allowed for using German script.*)

I. Translate into German :—

Of all the hereditary states (*use one word in German*) which the House of Austria possessed, Hungary and Siebenbürgen were the most insecure and the most difficult to defend. The impossibility of maintaining these countries against the adjacent (nah) and superior power of the Turks had compelled Ferdinand to acknowledge, by a yearly tribute, the suzerainty (oberſte Hoheit) of the Porte in Siebenbürgen—a dangerous confession of weakness, and a still more dangerous incitement (anreizen = to incite) for the restless nobles, if they fancied they had cause to complain of their master. The Hungarians had not submitted (ſich unterwerfen) unconditionally to the House of Austria. They upheld the freedom of election to the throne, and demanded defiantly (trotzig) all the privileges which are inseparable from this freedom. The close proximity of the Turkish Empire, and the ease with which they could with impunity (ſtrafen = to punish) change their masters, confirmed their chiefs all the more in this defiance ; if they were dissatisfied with the Austrian Government, they flung themselves into the arms of the

Turks ; dissatisfied with them, they returned to their German suzerainty. This frequent and rapid change from one domination to another had not been without bad effects, and as their country had hovered (schweben) between German and Turkish suzerainty, so did their minds hesitate (schwanken) constantly between revolt and submission.

II. Translate the following sentences :—

(*a*) I do not want to read the letter ; I should like to burn it.
(*b*) A dog would not care to live on in this way.
(*c*) I could not but comply with his request.
(*d*) Some are said to have seen him.
(*e*) I shall never believe that of him unless he himself confesses it.
(*f*) I wish I were ten years younger.

SECOND PAPER.

Wednesday, 4th October 1893.—3.30 *to* 5.30 *o'clock.*

I. Translate into English :—

(*a*) Indessen war Karthago durch Handel und Ackerbau in der Stille wieder zu einigem Wohlstand aufgeblüht, besonders seitdem es Hannibal gelungen war, das ehrlose, selbstsüchtige Aristokratenregiment zu stürzen und eine bürgerliche Verwaltung zu begründen, welche Ordnung und Recht mit billigem Sinn schirmte und den Staatshaushalt so verständig und umsichtig leitete, daß den Römern die Kriegssteuern entrichtet werden konnten, ohne daß die Bürger mit außerordentlichen Lasten gedrückt wurden. Dieser Aufschwung weckte aufs neue den Neid der von Nationalhaß erfüllten Römer und gab den aufreizenden Reden Cates, welcher, teils aus persönlichem Groll, weil die Karthager seine Vermittelung verworfen hatten, teils aus Besorgnis vor dem noch immer reichen Handelsstaat, stets die Zerstörung der nebenbuhlerischen Stadt anriet, immer mehr Nachdruck (Ceterum censeo Carthaginem esse delendam). Die römischen Kaufleute, die nach Vernichtung der reichen Geld und Handelsstadt Karthago in die Erbschaft einzutreten hofften, schürten (*fanned*) die Flamme des Hasses. Masinissa, von den Absichten der Kriegspartei und der herrschenden Gesinnung unterrichtet und römischen Schutzes versichert, vergrößerte sein Gebiet auf Unkosten der Nachbarn, riß unter dem Vorgeben alter Rechte und Ansprüche eine Menge Ortschaften und blühender Landstriche an sich und reizte die Karthager durch fortwährende Grenzstreitigkeiten und ungerechte Übergriffe (*encroachments*) so sehr, daß sie zuletzt, als das schiedsrichterliche (Schiedsrichter = *arbiter*) Urteil der Römer stets zu Gunsten des befreundeten Numidiers ausfiel, auf Anregung der Patriotenpartei, namentlich des Feldherrn Hasdrubal, zu den Waffen griffen und ihr Gebiet verteidigten. Dies galt in Rom als Friedensbruch und gab zu einer Kriegserklärung die

willkommene Veranlassung. Die Karthager flehten um Schonung. Sie boten die vollständigste Unterwerfung an, und lieferten auf Verlangen zuerst 300 angesehene Geißeln, dann ihre Waffen und Schiffe aus. Als aber der Ausspruch (*decision*) erfolgte, Karthago sollte niedergerissen werden und den Einwohnern nur vergönnt sein, sich mindestens zwei Meilen vom Meer entfernt aufs neue anzusiedeln, da beschlossen sie, sich lieber unter den Mauern ihrer Häuser zu begraben, als den geliebten Boden der Vaterstadt, „die altgewohnte teure Meeresheimat," aufzugeben.

(*b*) Im weiten Mantel bis ans Kinn verhüllet
Ging ich den Felsenweg, den schroffen, grauen
Hernieder, dann zu winterhaften Auen,
Unruh'gen Sinns, zur nahen Flucht gewillet.

Auf einmal schien der neue Tag enthüllet:
Ein Mädchen kam, ein Himmel anzuschauen,
So musterhaft wie jene lieben Frauen
Der Dichterwelt. Mein Sehnen war gestillet.

Doch wandt' ich mich hinweg und ließ sie gehen
Und wickelte mich enger in die Falten
Als wollt' ich trutzend in mir selbst erwarmen;
Und folgt' ihr doch. Sie stand. Da war's geschehen:
In meiner Hülle konnt' ich mich nicht halten,
Die warf ich weg, sie lag in meinen Armen.

II. Grammar :—

The following questions are based on the pieces set for translation into English.)

1. (*a*) With reference to: Indessen war Karthago, state the rule as to the inversion of the subject. (*b*) Give the Present and Imperfect Indicat. and the Present Subj. of the impersonal verb gelingen. (*c*) Decline das ehrlose Regiment throughout the Singular. (*d*) Separate the components in Staatshaushalt and explain each.

2. (*a*) Give, in the first person Singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of können. (*b*) Parse sie wurden gedrückt. (*c*) Give the intransitive verb related in form and meaning to wecken. (*d*) Give in the second person Singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of geben.

3. (*a*) Give in the third person Singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of werfen. (*b*) Give in the first person Plural only, in the Indicative and in the Subjunctive, the Present and the Imperfect of reißen. (*c*) Referring to als das Urteil ausfiel, explain the rule as to separable compound verbs in principal

and dependent clauses. (*d*) Give in the second person Plural (Pronoun ihr) only, in the Indicative and in the Subjunctive, the Present and the Imperfect of bieten.

4. (*a*) Referring to ſie beten an, give five compound verbs which sometimes are separable, sometimes inseparable, according to meaning, and give those meanings. (*b*) Referring to anzuſiedeln, explain the formation of the Infinitive with zu and of the Past Participle in compound verbs of both descriptions. (*c*) Give in the third person Plural only, in the Indicative and in the Subjunctive, the Present and the Imperfect of beſchließen. (*d*) Decline in the Singular only unſere altgewohnte Heimat.

5. (*a*) Account for the forms: verhüllet, gewillet, geſtillet. (*b*) Decline in the Singular only: nahe Flucht. (*c*) Show the difference between mein Sehnen war geſtillet and mein Sehnen wurde geſtillet. (*d*) Distinguish between liegen and legen.

III. Literature, History and Philology (one question only to be attempted).

(*a*) Write a short notice on the life and work of Goethe.

(*b*) Give some short account of Luther and the German Reformation.

(*c*) State Grimm's law as to the transmutation of consonants and give illustrations.

Wednesday, 4th April 1894.—2 *to* 3.30 *o'clock.*

FIRST PAPER.

Translate into German :—

(*a*) Although Robin Hood was a robber, he was a kind man, and would never allow a woman to be injured. Once when he had sent his men as usual to watch for passers-by, they saw a knight on horseback riding along sad and weary. They invited him to dine with their master. Robin treated him very kindly, made him eat and drink of the best, and tried to cheer him up. At last he asked what made him so uneasy. The knight said that an abbot had lent him four hundred pounds upon his house and land for a year, that it must be repaid next day, or the house and the land would be the abbot's, and he, his wife and children, beggars; that he had been to foreign countries to seek for aid to pay it, and could get none, and was riding home with only ten shillings in his pocket. Robin so pitied him that he not only gave him enough money to buy back his land, but a handsome horse besides. So the knight went away, very happy and full of gratitude.

By the invitation of King Richard I., Robin met his majesty at Nottingham, accepted service with him, and accompanied him to the palace, where he lived about a year; but growing weary of the court, he retired and resumed his wonted free and jovial life in the forest until he was an old man.

(*b*) 1. If you will bring the answer in time, I will pay you for it.
2. The way he behaves is really too absurd.
3. I hope I am not disturbing you ; if so, I shall come another time.
4. If he would only work now, he might yet succeed.
5. Without adding another word, he took his hat and disappeared.
6. What do you want the knife for? You will only cut your finger with it.

SECOND PAPER.

Wednesday, 4th April 1894.—3.30 *to* 5.30 *o'clock.*

I. Translate into English :—

(*a*) Sein Versprechen hatte der Herzog erfüllt, und die Armee stand fertig im Felde; jetzt trat er zurück und überließ dem Kaiser, ihr einen Führer zu geben. Aber es würde ebenso leicht gewesen sein, noch eine zweite Armee, wie diese war, zu errichten, als einen anderen Führer, außer Wallenstein, für sie aufzufinden. Dieses vielversprechende Heer, die letzte Hoffnung des Kaisers, war nichts als ein Blendwerk, sobald der Zauber sich löste, der es ins Dasein rief; durch Wallenstein ward es, ohne ihn schwand es, wie eine magische Schöpfung in sein voriges Nichts dahin. Die Officiere waren ihm entweder als seine Schuldner verpflichtet oder als seine Gläubiger aufs engste an sein Interesse, an die Fortdauer seiner Macht geknüpft; die Regimenter hatte er seinen Verwandten, seinen Geschöpfen, seinen Günstlingen untergeben. Er und kein anderer war der Mann, den Truppen die ausschweifenden Versprechungen zu halten, wodurch er sie in seinen Dienst gelockt hatte. Sein gegebenes Wort war die einzige Sicherheit für die kühnen Erwartungen; blindes Vertrauen auf seine Allgewalt das einzige Band das sie alle zusammenhielt. Geschehen war es um das Glück jedes einzelnen, sobald derjenige zurücktrat, der sich für die Erfüllung desselben verbürgte.

—SCHILLER.

Abendlied.

(*b*) Nun schlafen die Vöglein im Neste,
Nun schlummern die Blüten am Strauch,
Und unter dem Himmel die Weste,
Die Lüfte sie ruhen nun auch.

Nur droben, da wachen die Sterne
Und singen ihr ewiges Lied,
Das, hallend aus endloser Ferne,
Leis' über die Erde zieht.

Und der da von Anbeginn lenket,
Das ganze ſchimmernde Heer,
Auch deiner liebend gedenket,
Du giltſt ihm ja noch viel mehr.

Der ſegnet die Vöglein und Blüten,
Und leitet der Winde Hauch,
Der wird auch Dich wol behüten,
So ruh' in Frieden nun auch.

II. Grammar.

1. Which verbs form their past participle without the prefix ge-, and why?

2. Explain (*a*) the neuter gender in Weib, Kind, Mädchen, Kalb; (*b*) the capital letter P and the uninflected form of the word „Pariſer" in „die Pariſer Moden"; (*c*) the genitive of Sonne in Sonnenſchein and of nachts; (*d*) the expression drittehalb = $2\frac{1}{2}$.

3. Explain the difference between (*a*) er ſagte mir, daß der König krank iſt, and er ſagte mir, daß der König krank ſei; (*b*) die Anſicht, die Abſicht, and die Ausſicht; (*c*) erjagen, verjagen, and zerjagen.

4. Give comparative and superlative of alt, mager, rund, viel, dankbar; and state when the comparative is formed with „mehr". Give a few examples.

5. (*a*) What cases are governed by the following verbs and adjectives: folgen, gehorchen, ſich erinnern, gewiß, fähig.

(*b*) Give the German for "one foot broad and three feet high."

6. Would you say wir landeten an die, or an der Küſte; er ſtellte ſeine Soldaten vor die, or vor der Stadt auf? Justify your answer.

III.—Literature and Philology.

One *only of the following questions is to be attempted.*

1. Give the English etymological equivalents for any ten of the following words: Knecht, ſchwarz, Herbſt, Tier, ſterben, tüchtig, Baum, fahren, Buch, Zeit, eigen, ſchlagen, ziehen.

2. Give the German etymological equivalents for any ten of the following words: leap, tough, timber, bleak, ridge, ditch, dough, show, deal, ordeal, bone, silly, head.

3. Explain why certain adjectives, such as ſtumm, klar, do not take the „Umlaut" in the comparative and superlative.

4. Give some account of any German play you have read.

5. State what you know of Lessing's literary activity.

6. The influence of Shakespeare on the German drama.

DYNAMICS.

Friday, 6th October 1893.—1 *to* 4 *o'clock.*

1. What is Velocity? What is the unit in terms of which it is measured?

State the propositions known as the parallelogram of velocities and the triangle of velocities.

A train travels along a straight line at the rate of 30 ml. per hr., and a marble is rolled across the floor of one of the carriages at right angles to the direction of the line at the rate of 15 yd. in 3 sec. Find the resultant velocity of the marble in ft. per sec.

2. What is Acceleration? What is the unit in terms of which it is measured?

If a point be moving with uniform acceleration, and move through 61 ft. in the 14th sec. from the commencement of its motion, and through 113 ft. in the 27th sec., find the initial velocity and also the acceleration of the point.

3. State Newton's Second Law of Motion.

What is an Absolute Unit of Force, and what is the Poundal? In what time will a force equal to the weight of 7 lb., acting on a mass of 2 tons, move it through 25 ft.?

4. Explain the terms Work, Power, Horse-power.

A well, which is in form a square prism of $3\frac{1}{2}$ ft. side and 50 ft. deep, is filled with water. What is the horse-power of an engine which can lift the water to the level of the top of the well in $1\frac{1}{2}$ hr.?

5. What is the Centre of a System of Parallel Forces?

ABC is an equilateral triangle whose sides each measure 1 ft. At A, B, and C, parallel forces of 7, 5, and 4 lb. act. Show how to find the centre of these parallel forces.

6. What is meant by the Moment of a Force about a point?

A uniform lever is 2 ft. long and weighs 1 oz. per inch length. A weight of 13 oz. is hung at one end and a weight of 29 oz. at the other. About what point will the lever balance?

7. Define Density and Specific Gravity.

If the specific gravity of silver be 10·5, find the weight of 7·2 cub. in.

8. Explain, by the aid of a diagram, the action of the Common Pump, and also of the Force Pump.

9. State Boyle's Law, and explain how the law is verified experimentally in the case of a compression of air.

Friday, 6th April 1894.—2 *to* 5 *o'clock.*

1. When a uniform force acts on a body, and produces motion in it, state the relation between the force, time, mass, and velocity produced, specifying the units in which each is measured.

How long must a force equal to the weight of an ounce act uniformly on a pound to produce a velocity of 3 feet per second?

2. Show how to resolve a force into two components acting in given directions.

Forces 1, 2, 3 act at a point parallel to the sides of an equilateral triangle taken in order, find their resultant.

3. Find the resultant of two parallel forces.

A uniform beam weighing 6 lbs., and 4 feet long, has weights of 5 lbs. and 3 lbs. suspended from its extremities; on what point will it balance?

4. Draw any system of pulleys in which 1 lb. balances 6 lbs. Prove the principle of conservation of work in this system.

5. State the first two laws of motion, and mention one fact in support of each.

6. Prove the formula for the space described from rest under gravity.

A body is dropped from a point A, and after one second another body is dropped from B which is 64 feet vertically below A, find when and where they will meet, g being taken $=32$.

7. How is the pressure on any plane area immersed in water estimated?

A lock gate in a canal is 20 feet wide, and the water is 10 feet deep on one side and 14 feet deep on the other, find the difference of pressure on the two sides of the gate.

8. State Boyle's Law.

A vertical tube closed at the top dips in mercury with 15 inches outside, the levels of the mercury outside and inside the tube being the same and the barometer at 30 inches. The atmospheric pressure changes, and it is found necessary to raise the tube $\frac{1}{4}$th inch to keep the levels alike, what is the new height of the barometer?

Examination Papers for First Year Open Bursaries.

The Examination Papers for the University First Year Open Bursaries in October 1893 *were the Preliminary Examination Papers in English (excluding History and Geography), Higher Latin, Higher Greek, and Higher Mathematics, with the following additional papers.*

ENGLISH.

Saturday, 30th September 1893.—9 *to* 12 *o'clock.*

1. Discuss, within the limit of three pages, and with strict attention to style, *one* of the following statements :—

(*a*) "The passages of Shakespeare that we most prize were never quoted until within this century."—(*Emerson.*)

(*b*) "Most men write now as if they expected that their works should live no more than a month."

(*c*) "Of all the cants which are canted in this canting world,—though the cant of hypocrites may be the worst,—the cant of criticism is the most tormenting!"—(*Sterne.*)

2. Estimate the importance in the history of English Literature of any *two* of these works :—*The Canterbury Tales ; The Spectator ;* Percy's *Reliques ; The Lyrical Ballads ; Waverley.*

3. What do you know of the Romance Cycles popular in England before the time of Chaucer? Is there any survival of them in modern literature?

4. Contrast the state of literature in England with that in Scotland during the early sixteenth century.

5. Write a brief note on any *three* of the following characters : — Ophelia ; Menenius ; Sir Toby Belch ; Lucy Ashton ; Sam Weller ; Bottom ; Master Varney ; Major Pendennis ; Will Wimble ; Sir Hudibras.

6. Give an account of the works of any *two* of these writers :— Dryden ; Pope ; Johnson ; Shelley ; Jonson ; Byron ; Marlowe ; Bacon.

7. Which work, in verse or prose, by a living imaginative writer, have you read with the greatest pleasure? Can you give any reasons for your liking?

8. Explain the verse-construction of the following passages, giving, if possible, the formulae for metre and rhyme :—

(*a*) Wild words wander here and there :
God's great gift of speech abused
Makes thy memory confused :
But let them rave.
The balm-cricket carols clear
In the green that folds thy grave.
Let them rave.

(*b*) There lived a wife at Usher's Well,
And a wealthy wife was she ;
She had three stout and stalwart sons,
And sent them o'er the sea.

(*c*) And these things I see suddenly, what mean they ?
As if some miracle, some hand divine unsealed my eyes,
Shadowy vast shapes smile through the air and sky,
And on the distant waves sail countless ships,
And anthems in new tongues I hear saluting me.

9. Transcribe in modern English :—

þeos ule abod fort hit was eve,
Heo ne miȝte no leng bileve,
Vor hire heorte was so gret,
þat wel neȝ hire fnast at-schet ;
And warp a word þar-after longe :
'Hu þinc̃þe nu bi mine songe ?
Wenst þu þat ich ne cunne singe,
þeȝ ich ne cunne of writelinge ?
I-lome þu dest me grame,
And seist me boþe teone and schame ;
ȝif ich þe heolde on min uote,
So hit bi-tide þat ich mote !
And þu were ut of þine rise,
þu scholdest singe an oþer wise.'

(*The Owl and the Nightingale.*)

Or,

On þys geare, þæt wæs ymb twelf monaƿ þæs þe hie on þæm eastrice geweorc geworht hæfdon, Norþhymbre ond Eastengle hæfdon Ælfrede cyninge aþas geseald, ond Eastengle foregisla vi. : ond þeh ofer þa treowa, swa oft swa þa oþre hergas mid ealle herige ut foron, þonne foron hie, oþþe mid oþþe on heora healfe an. þa gegaderade Ælfred cyning his fierd, ond for þæt he gewicode betwuh þæm twam hergum, þær þær he niehst rymet hæfde for wuduſæstenne ond for wæterfæstenne, swa þæt he mehte ægþerne gerædan, gif hie ænige feld secan wolden.

(*The Saxon Chronicle.*)

10. At what times, and by what channels did the English vocabulary receive words of Latin origin? Give Examples.

LATIN.

Saturday, 7th October 1893.—9 *to* 10.30 *o'clock.*

I. Translate into Latin prose:—

Fabius, the "Lingerer," as he was now dubbed, adopted the cautious policy of watching the movements of Hannibal from a safe distance. In the strength of the camp, which was always erected when the halt was made for a single night, he defied the great general to make him fight, or to shake him off from the skirt of the Carthaginian army wherever it moved. Hannibal, irritated by this stolid enemy, as difficult for him to deal with as his own flying horsemen were for the Romans to deal with, tried at last to provoke him to a battle by a raid upon Campania, where Hannibal's clemency had inclined a party in Capua to side with him.

II. Translate into English:—

(*The poet to his book, with an apology for its shortness.*)

Ter centena quidem poteras epigrammata ferre,
sed quis te ferret perlegeretque, liber?
at nunc succinti quae sint bona disce libelli.
hoc primum est, brevior quod mihi charta perit;
deinde, quod haec una peragit librarius hora,
nec tantum nugis serviet ille meis;
tertia res haec est, quod si cui forte legeris,
sis licet usque malus, non odiosus eris.
te conviva leget mixto quincunce, sed ante
incipiat positus quam tepuisse calix.
esse tibi tanta cautus brevitate videris?
hei mihi, quam multis sic quoque longus eris!

GREEK.

Saturday, 7th October 1893.—10.30 *to* 12 *o'clock.*

I. Translate:—

Αἰνεία, τί σὺ τόσσον ὁμίλου πολλὸν ἐπελθὼν
Ἔστης; ἦ σέ γε θυμὸς ἐμοὶ μαχέσασθαι ἀνώγει,
Ἐλπόμενον Τρώεσσιν ἀνάξειν ἱπποδάμοισι
Τιμῆς τῆς Πριάμου; ἀτὰρ εἴ κεν ἐμ' ἐξεναρίξῃς,
Οὔ τοι τοὔνεκά γε Πρίαμος γέρας ἐν χερὶ θήσει·
Εἰσὶν γάρ οἱ παῖδες· ὁ δ' ἔμπεδος οὐδ' ἀεσίφρων.

Ἦ νύ τί τοι Τρῶες τέμενος τάμον ἔξοχον ἄλλων,
Καλὸν φυταλιῆς καὶ ἀρούρης, ὄφρα νέμηαι,
Αἴ κεν ἐμὲ κτείνῃς ; χαλεπῶς δέ σ' ἔολπα τὸ ῥέξειν.
Ἤδη μὲν σέ γέ φημι καὶ ἄλλοτε δουρὶ φοβῆσαι.
Ἦ οὐ μέμνῃ ὅτε πέρ σε βοῶν ἄπο μοῦνον ἐόντα
Σεῦα κατ' Ἰδαίων ὀρέων ταχέεσσι πόδεσσι
Καρπαλίμως ; τότε δ' οὔτι μετατροπαλίζεο φεύγων.

Write notes on the cases :—ὁμίλου—Τρώεσσιν—τιμῆς.

II. For Greek Prose :—

Philemon has passed through the most considerable offices in the state. He was, when very young, captain of a trireme at the battle of Salamis, and narrowly missed taking the famous queen Artemisia, who escaped him by a very extraordinary stratagem. He has been since overseer of the fortifications, archon, one of the five hundred, and is now a member of the Areopagus. In all these employments an unblemished integrity, and an exact discharge of his duty, have recommended him to his countrymen as one of their most deserving citizens. He has frequently opposed the measures both of Cimon and Pericles ; but it was in such a manner that you saw, though he condemned the faults, he spared the men.

MATHEMATICS.

Saturday, 7th October 1893.—2 *to* 4 *o'clock.*

1. Discuss briefly the number of conditions required to fix a plane figure in its own plane, and indicate any apparent exceptions to the general rule.

Deduce the number of conditions required to determine the shape and size (apart from the position) of a plane n-gon.

Given the position of two vertices of a triangle, its area and a straight line on which its centroid (centre of medians) must lie, show that the triangle is determined and how to construct it, indicating the number of possible solutions.

2. Show that the perpendiculars from the vertices of a triangle on the opposite sides are concurrent.

If P be the centre of perpendiculars (orthocentre) of the triangle ABC, and L, M, N denote the areas PBC, PCA, PAB respectively, show that

$$L(b^2+c^2-a^2)=M(c^2+a^2-b^2)=N(a^2+b^2-c^2).$$

3. Defining the power of any point with respect to a circle to be the excess of the square of the distance of the point from the centre of the circle over the square of the radius, show that the locus of a point

which has equal powers with respect to two given circles is a straight line; and deduce some of the more obvious properties of this straight line.

If two circles touch, show that any circle which cuts the two at right angles must pass through their point of contact.

4. Explain what is meant by the "Locus of a Point"; and explain how loci can be used to determine points.

Show how to find two straight lines when their ratio and the difference of their squares are given.

5. Show that two similar figures can (in two different ways) be placed so that the lines joining corresponding points are concurrent (Euclid's Definition of Similarity to be taken).

If two adjacent sides of a parallelogram touch a given circle, and the other two sides touch another given circle, show that one of the two diagonals always passes through one or other of two fixed points.

6. Show that a series of parallel planes always cuts any transversal line so that the segments have the same ratio.

The top of a church tower consists of a cube 5 feet high, surmounted by a regular pyramid 12 feet high, the base of the pyramid being the upper face of the cube: calculate how many square feet of lead will be required to cover the top of the tower.

7. Find the coefficient of x^2 in

$$(x^2+ax+b)^3+(x^2+ax-b)^3+(x^2-ax+b)^3+(x^2-ax-b)^3.$$

Simplify

$$(b-c)\ (x+b+c)^2+(c-a)\ (x+c+a)^2+(a-b)\ (x+a+b)^2+(b-c)\ (c-a)\ (a-b).$$

8. Establish the theorem which gives the remainder when any integral function of x is divided by $x-a$.

Resolve the following into linear factors:—

(α) $(x-1)^2+(x^2-3x+2)$;

(β) $(y+z)\ (y^3-z^3)+(z+x)\ (z^3-x^3)+(x+y)\ (x^3-y^3)$;

(γ) $6x^2+13xy+6y^2+x-y-1$.

9. If G be the G.C.M. of two integral functions of x, A and B, show that G can always be expressed in the form $LA+MB$, where L and M are integral functions of x, which are prime to each other. State the corresponding theorem when A and B are prime to each other.

Show that there are an infinite number of pairs of values of a and b for which $(x^3+x^2+a)/(x^2+x+b)$ can be reduced to the quotient of a quadratic by a linear function of x, and give one such pair of values other than $a=0$, $b=0$.

10. Find the condition that $\sqrt{(a+\sqrt{b})}$ can be expressed in the form $\sqrt{x}+\sqrt{y}$, where a, b, x, y are all positive commensurable numbers, and $\sqrt{b}$ is incommensurable.

Reduce to linear form—

$$1/\sqrt{(23-4\sqrt{15})}+1/\sqrt{(23+4\sqrt{15})}.$$

11. Show that a system of two equations, each of the first degree in x and y, has one, and only one, solution, save in one particular case in which the solution is indeterminate.

Solve the system—

$$15/\sqrt{(x-y)}+20/\sqrt{(x+y)}=9,$$
$$\sqrt{(x^2-y^2)}-3\sqrt{(x+y)}+4\sqrt{(x-y)}=0.$$

12. Define the Arithmetic, Geometric, and Harmonic means between two positive quantities; and show that they are in descending order of magnitude.

Find the sum of n terms of the series whose terms are the squares of the first n terms of an Arithmetic series whose first term is 1 and whose common difference is 3.

HIGHER GEOMETRY FOR HERIOT BURSARIES AND KELLAND PRIZE.

Monday, 9th October 1893.—9 *to* 12 *o'clock.*

1. Of all triangles inscribed in a given triangle, that has the minimum perimeter which is formed by joining the feet of the perpendiculars from the vertices of the fixed triangle on the opposite sides.

Given of a triangle the position of the feet of two perpendiculars and the angle subtended at the third by these two, find the locus of the orthocentre.

2. The rectangle contained by the sides of a triangle ABC is equal to the rectangle contained by the diameter of the circumscribing circle and the perpendicular let fall from the vertex on the base.

If AD and AE are the internal and external bisectors of the vertical angle A, and if AD and AE produced meet the circle again in D' and E' respectively, then

$$AD\cdot AD'=AE\cdot AE'=BA\cdot AC.$$

3. Explain the convention of positive and negative directions on a line, and show that if $A_1, A_2, \ldots A_n$ are n points on a line, and O be found such that $\Sigma.AO=0$, then, if P be any other point on the line, (i) $\Sigma AP=nOP$; (ii) $\Sigma AP^2=nOP^2+\Sigma AO^2$.

If A, B, C be any three points on a line and P any finite point whatsoever, then

$$AB\cdot CP^2+BC\cdot AP^2+CA\cdot BP^2=-AB\cdot BC\cdot CA.$$

4. If through any point P in the plane of a triangle ABC straight lines AP, BP, CP be drawn, meeting the opposite sides in D, E, F respectively, then $\dfrac{BD}{CD}\cdot\dfrac{CE}{AE}\cdot\dfrac{AF}{BF}=-1$.

ABC is a right-angled triangle of which AC is the hypotenuse. Squares $AKHB$, $BLMC$ are described externally on AB and BC, and

BD is drawn perpendicular to the base. Show that AM, CK, BD are concurrent.

5. Any two circles may be considered as two similar and similarly situated figures.

The straight lines cutting two non-intersecting circles under equal angles form, in general, two systems of concurrent lines. Investigate, in particular, when one system becomes a series of parallel lines.

6. Any two circles can be inverted into two circles of equal radii in an infinity of ways.

Hence, or otherwise, solve the problem,—to describe a circle touching three given circles.

7. Give the locus definition of the Polar of a point with respect to a circle, and show that it is a straight line.

If a quadrilateral be inscribed in a circle, then

(i) The square on the third diagonal is equal to the sum of the powers of its extremities with respect to the circle.

(ii) The circle on the third diagonal as diameter cuts the original circle orthogonally.

8. With the locus definition of a parabola show that the square on the ordinate of any point of it is equal to the rectangle contained by the abscissa of the point and the latus rectum.

AB and AC are two lines at right angles, and C a fixed point on AC. Any line AR is drawn meeting the parallel through C to AB in R. On AR a point P is taken such that its ordinate PN with respect to AB is equal to CR. Show that P moves on a parabola, and find the focus and directrix.

9. Prove the existence of asymptotes in the hyperbola, and show that any tangent intercepted between the asymptotes is bisected at the point of contact.

Describe a hyperbola, given the asymptotes and one point of the curve.

10. Given two projective rows of points, show that a third can be found with which they are both in perspective.

A triangle has its vertex fixed, and its vertical angle constant while the extremities of the base lie on two fixed lines, find the envelope of the base.

11. Show that a common perpendicular may be drawn to two non-intersecting straight lines in space, which is at the same time the shortest distance between any two points on them.

Find the locus of the middle points of the lines joining any two points on two non-intersecting straight lines.

If two non-intersecting straight lines be perpendicular to each other, the locus of the middle points of lines of constant length joining two points on them is a circle.

12. The great circle joining two points on a sphere is the shortest path on its surface between them.

How many points on a sphere can be found whose least distances from three great circles are equal?

Examination Papers for Ordinary Degree of M.A. in 1893-94.

DEPARTMENT OF LANGUAGE AND LITERATURE.

LATIN.

Tuesday, 10th October 1893.—2.30 *to* 4.30 *o'clock.*

I. For Latin Prose :—

Meantime Marcius and Tullus held secret conferences with the principal Volscians, in which they exhorted them to begin the war while Rome was torn in pieces with factious disputes ; but a sense of honour restrained them from breaking the truce which was concluded for two years. The Romans, however, furnished them with a pretence for it, having, through some suspicion, caused proclamation to be made that all the Volscians should quit the town before sunset. This proclamation exasperated the whole Volscian nation ; and Tullus, by making the worst of the affront, at last persuaded them to send to Rome, to demand that the lands and cities which had been taken from them in the war should be restored. The senate, having heard the ambassadors, answered with indignation, that the Volscians might be the first to take up arms ; but the Romans would be the last to lay them down. Both parties at once prepared for war.

II. Translate :—

Ludi forte ex instauratione magni Romae parabantur. Instaurandi haec causa fuerat : ludis mane servum quidam pater familiae, nondum commisso spectaculo, sub furca caesum medio egerat circo. Coepti inde ludi, velut ea res nihil ad religionem pertinuisset. Haud ita multo post Tito Latinio, de plebe homini, somnium fuit. Visus Iuppiter dicere sibi ludis praesultatorem displicuisse : nisi magnifice instaurarentur ii ludi, periculum urbi fore : iret, ea consulibus nuntiaret. Quamquam haud sane liber erat religione animus, verecundia tamen maiestatis magistratuum timorem vicit, ne in ora hominum pro ludibrio abiret. Magno illi ea cunctatio stetit : filium namque intra paucos dies amisit. Cuius repentinae cladis ne causa dubia esset, aegro animi eadem illa in somnis obversata species visa est rogitare, satin magnam spreti numinis haberet mercedem ; maiorem instare, ni eat propere ac nuntiet consulibus. Iam praesentior res erat. Cunctantem tamen ac prolatantem ingens vis morbi adorta est debilitate subita.

praesultator = public dancer.

Wednesday, 11th October 1893.—9 *to* 11 *o'clock.*

I. (1) Translate :—

Horace, *Sat.* i. 5, lines 9-19, *from* "Iam nox inducere terris," *to* "religat stertitque supinus."

(2) Translate, with *brief* notes :—

(α) Acerbus
Odisti et fugis, ut Rusonem debitor aeris ;
Qui nisi, cum tristes misero venere Kalendae,
Mercedem aut nummos unde unde extricat, amaras
Porrecto iugulo historias, captivus ut, audit.

(β) Beatus Fannius, ultro
Delatis capsis et imagine

(γ) Ut quisque insanus nigris medium impediit crus
Pellibus, ac latum demisit pectore clavum.

(δ) Casu tunc respondere vadato
Debebat.

II. Translate and explain shortly :—

(1) Illae autem, paribus quas fulgere cernis in armis,
Concordes animae nunc, et dum nocte premuntur,
Heu quantum inter se bellum, si lumina vitae
Attigerint, quantas acies stragemque ciebunt,
Aggeribus socer Alpinis atque arce Monaeci
Descendens, gener adversis instructus Eois !

(2) Genitor mihi talia namque
(Nunc repeto) Anchises fatorum arcana reliquit :
"Cum te, nate, fames ignota ad litora vectum
"Accisis coget dapibus consumere mensas,
"Tum sperare domos defessus ibique memento
"Prima locare manu molirique aggere lecta."
Haec erat illa fames ; haec nos suprema manebat
Exitiis positura domum.

(3) Nec procul hinc Romam et raptas sine more Sabinas
Consessu caveae, magnis Circensibus actis,
Addiderat, subitoque novum consurgere bellum
Romulidis Tatioque seni Curibusque severis.

(4) Ut ventum ad sedes, "Haec" inquit "limina victor
"Alcides subiit, haec illum regia cepit.
"Aude, hospes, contemnere opes et te quoque dignum
"Finge deo, rebusque veni non asper egenis."

III. Translate, briefly explaining the allusions :—

(α) Longinum et magnos Senecae praedivitis hortos
Clausit et egregias Lateranorum obsidet aedes
Tota cohors : rarus venit in coenacula miles.

(β) Tum quoque materiam risus invenit ad omnes
Occursus hominum, cuius prudentia monstrat
Summos posse viros et magna exempla daturos
Vervecum in patria crassoque sub aere nasci.

(γ) Bellorum exuviae, truncis affixa tropaeis
Lorica et fracta de casside buccula pendens
Et curtum temone iugum victaeque triremis
Aplustre et summo tristis captivus in arcu
Humanis maiora bonis creduntur.

(δ) Rex Pylius, magno si quidquam credis Homero,
Exemplum vitae fuit a cornice secundae.

(ε) Et Croesum, quem vox iusti facunda Solonis
Respicere ad longae iussit spatia ultima vitae.

(ζ) Exilium et carcer Minturnarumque paludes
Et mendicatus victa Carthagine panis
Hinc causas habuere.

IV. Translate :—

Cicero, *Pro Sulla* xxii., §§ 62, 63, *from* "At enim et gladiatores" *to* "poena legis, quae levabatur."

What was the exact object of the *rogatio Caecilia*?

V. Translate :—

Tacitus, *Agric.* 22, *from* "Adnotabant periti" *to* "offendere quam odisse."

Tacitus, *Agric.* 35, *from* "Et alloquente adhuc" *to* "ante vexilla constitit."

VI. Answer any *three* of the following questions :—

(1) Give an account of the origin of Roman *Satire*, mentioning the most probable derivation of the name. How far are the original features preserved by Horace and Juvenal?

(2) Compare Vergil with *either* Ennius *or* Lucretius as a writer of Roman Epic.

(3) Sketch shortly the public career of Cicero up to the outbreak of the Civil War.

(4) Explain clearly the condition of affairs at Caesar's death, showing what parties existed in the state and what were their prospects.

(5) What was Augustus' policy with regard to the provinces? Mention (without details) any special measures or operations by which he tried to carry it out.

(6) Give a brief narrative of the course of Roman operations in Britain up to the landing of Agricola.

(7) Compare shortly the style of Cicero and Tacitus. Which do you prefer, and why?

Thursday, 5th April 1894.—9 *to* 11 *o'clock.*

1. Translate into Latin Prose :—

A Norman ship and an English one had sent their boats ashore for water, and a contention arose as to the preference, in which blows were given, and one of the Normans was killed. Vexed at their defeat the Normans complained to the French king, who in a moment of irritation asked them why they did not avenge themselves. So encouraged, they seized an English sailor and hanged him in reprisal for the loss of their comrade. But the English were not likely to submit to such treatment. Fresh encounters soon took place, and the Channel became the scene of a savage and unauthorised warfare. Edward at once sent an ambassador to the court of France to desire that some means might be found of putting a stop to these disorders. But the French king would not admit his error, and the war continued.

2. Translate :—

Eiusdem anni rem dictu parvam praeterirem, ni ad religionem visa esset pertinere. tibicines, quia prohibiti a proximis censoribus erant in aede Iovis vesci, quod traditum antiquitus erat, aegre passi Tibur uno agmine abierunt, adeo ut nemo in urbe esset, qui sacrificiis praecineret. eius rei religio tenuit senatum ; legatosque Tibur miserunt, ut darent operam, ut hi homines Romanis restituerentur. Tiburtini benigne polliciti primum accitos eos in curiam hortati sunt, uti reverterentur Romam : postquam perpelli nequibant, consilio haud abhorrente ab ingeniis hominum eos adgrediuntur. die festo alii alios per speciem celebrandarum cantu epularum causa invitant, et vino, cuius avidum ferme genus est, oneratos sopiunt ; atque ita in plaustra somno vinctos coniciunt ac Romam deportant. nec prius sensere quam plaustris in foro relictis plenos crapulae eos lux oppressit. tunc concursus populi factus, impetratoque ut manerent, datum ut triduum quotannis ornati cum cantu atqae hac quae nunc sollemnis est licentia per urbem vagarentur, restitutumque in aede vescendi ius iis qui sacris praecinerent.

Thursday, 5th April 1894.—11.30 *to* 1.30 *o'clock.*

1. (1) Translate :—

Quacunque libido est,
Incedo solus : percontor quanti olus ac far :
Fallacem Circum vespertinumque pererro
Saepe forum : adsisto divinis : inde domum me
Ad porri et ciceris refero laganique catinum.
Coena ministratur pueris tribus ; et lapis albus
Pocula cum cyatho duo sustinet : adstat echinus,
Vilis cum patera guttus, Campana supellex.
Deinde eo dormitum, non sollicitus, mihi quod cras
Surgendum sit mane, obeundus Marsya, qui se
Vultum ferre negat Noviorum posse minoris.

Ad quartam iaceo : post hanc vagor, aut ego (lecto,
Aut scripto, quod me tacitum juvet) unguor olivo,
Non quo fraudatis immundus Natta lucernis.
Ast, ubi me fessum sol acrior ire lavatum
Admonuit, fugio campum lusumque trigonem.

(2) Translate, with *brief* notes :—

(*a*) Quae, simul inversum contristat Aquarius annum,
Non usquam prorepit et illis utitur ante
Quaesitis sapiens.

(*b*) Nec vincet ratio hoc, tantundem ut peccet idemque
Qui teneros caules alieni fregerit horti
Et qui nocturnus sacra divum legerit.

(*c*) Hunccine solem
Tam nigrum surrexe mihi ! Fugit improbus ac me
Sub cultro linquit.

2. Translate, with short notes :—

(*a*) Huius in adventum iam nunc et Caspia regna
Responsis horrent divom et Maeotia tellus,
Et septemgemini turbant trepida ostia Nili.
Nec vero Alcides tantum telluris obivit,
Fixerit aeripedem cervam licet, aut Erymanthi
Pacarit nemora, et Lernam tremefecerit arcu.

(*b*) Saevit amor ferri et scelerata insania belli
Ira super : magno veluti cum flamma sonore
Virgea suggeritur costis undantis aeni,
Exsultantque aestu latices ; furit intus aquai
Fumidus atque alte spumis exuberat amnis.
Nec iam se capit unda ; volat vapor ater ad auras.

(*c*) Non tulit Alcides animis, seque ipse per ignem
Praecipiti iniecit saltu, qua plurimus undam
Fumus agit nebulaque ingens specus aestuat atra.
Hic Cacum in tenebris incendia vana vomentem
Corripit in nodum amplexus, et angit inhaerens
Elisos oculos et siccum sanguine guttur.

3. Translate, briefly explaining the allusions :—

Incolumi Troia Priamus venisset ad umbras
Assaraci magnis sollemnibus, Hectore funus
Portante ac reliquis fratrum cervicibus inter
Iliadum lacrimas, ut primos edere planctus
Cassandra inciperet scissaque Polyxena palla,
Si foret exstinctus diverso tempore, quo non
Coeperat audaces Paris aedificare carinas.
Longa dies igitur quid contulit ? omnia vidit
Eversa et flammis Asiam ferroque cadentem.

Tunc miles tremulus posita túlit arma tiara
Et ruit ante aram summi Iovis, ut vetulus bos,
Qui domini cultris tenue et miserabile collum
Praebet, ab ingrato iam fastiditus aratro.
Exitus ille utcumque hominis, sed torva canino
Latravit rictu, quae post hunc vixerat, uxor.

4. Translate :—

Iam vero illud probari minime potest, Gallos Autronio nominato putasse propter calamitatis similitudinem sibi aliquid de Sulla esse quaerendum, Cassio si hic esset in eodem scelere, ne quum appellasset quidem Autronium, huius in mentem venire potuisse. Sed tamen quid respondit de Sulla Cassius ! Se nescire certum. Non purgat, inquit. Dixi antea : ne si argueret quidem tum denique, quum esset interrogatus, id mihi criminosum videretur. Sed ego in quaestionibus et indiciis non hoc quaerendum arbitror, num purgetur aliqui, sed num arguatur. Etenim quum se negat scire Cassius, utrum sublevat Sullam an satis probat se nescire?—Sublevat apud Gallos.—Quid ita? ne indicent? Quid? si periculum esse putasset, ne illi umquam indicarent, de se ipse confessus esset?—Nesciit videlicet.—Credo celatum esse Cassium de Sulla uno : nam de ceteris certe sciebat : etenim domi eius pleraque conflata esse constabat.

Write a note on the words *propter calamitatis similitudinem*.

5. Translate, with short notes :—

(*a*) Dierum spatia ultra nostri orbis mensuram ; nox clara et extrema Britanniae parte brevis, ut finem atque initium lucis exiguo discrimine internoscas. quod si nubes non officiant, aspici per noctem solis fulgorem, nec occidere et exsurgere sed transire adfirmant. scilicet extrema et plana terrarum humili umbra non erigunt tenebras, infraque caelum et sidera nox cadit. solum praeter oleam vitemque et cetera calidioribus terris oriri sueta, patiens arborum, frugum fecundum : tarde mitescunt, cito proveniunt ; eademque utriusque rei causa, multus umor terrarum caelique.

(*b*) Nos terrarum et libertatis extremos recessus ipse ac sinus famae in hunc diem defendit.

(*c*) Igitur triumphalia ornamenta et illustris statuae honorem, et quicquid pro triumpho datur, multo verborum honore cumulata, decerni in senatu iubet.

6. Answer any *three* of the following questions :—

(1) Enumerate the principal steps in the struggle by which the plebeians gained admission to the curule offices.

(2) What are the "two conspiracies" referred to in the *Pro Sulla?* Give a careful account of the later of the two, and of Cicero's action and its results in his subsequent career.

(3) Sketch the life of Juvenal, and compare him with Horace as regards tone and diction.

(4) What reasons induced the Romans to invade Britain? How far, and by what generals, was it conquered in the first century A.D.?

(5) Give a short account of Sulla's reforms, and show why they failed.

(6) Compare or contrast the positions of Caesar and of Augustus when they had gained the supreme power.

GREEK.

Wednesday, 11th October 1893.—11.30 *to* 1.30 *o'clock.*

I. (1) Translate, with brief notes on the words underlined :—

Ὡς δ' ὅτ' ἀπ' Οὐλύμπου νέφος ἔρχεται οὐρανὸν εἴσω,
αἰθέρος ἐκ δίης, ὅτε τε Ζεὺς λαίλαπα τείνῃ,
ὣς τῶν ἐκ νηῶν γένετο ἰαχή τε φόβος τε,
οὐδὲ κατὰ μοῖραν πέραον πάλιν. Ἕκτορα δ' ἵπποι
ἔκφερον ὠκύποδες σὺν τεύχεσι· λεῖπε δὲ λαὸν
Τρωϊκὸν, οὓς ἀέκοντας ὀρυκτὴ τάφρος ἔρυκε.
πολλοὶ δ' ἐν τάφρῳ ἐρυσάρματες ὠκέες ἵπποι,
ἄξαντ' ἐν πρώτῳ ῥυμῷ λίπον ἅρματ' ἀνάκτων.
Πάτροκλος δ' ἔπετο, σφεδανὸν Δαναοῖσι κελεύων,
Τρωσὶ κακὰ φρονέων· οἱ δὲ ἰαχῇ τε φόβῳ τε
πάσας πλῆσαν ὁδοὺς, ἐπεὶ ἂρ τμάγεν· ὕψι δ' ἀέλλα
σκίδναθ' ὑπὸ νεφέων· τανύοντο δὲ μώνυχες ἵπποι
ἄψορρον προτὶ ἄστυ νεῶν ἄπο καὶ κλισιάων.

(2) Translate and explain the phrases :—διδασκόμενος πολέμοιο—πολέμου δ' οὐ γίγνετ' ἐρωή—ἀμιτροχίτωνας ἑταίρους—πάλαι πεπρωμένον αἶσῃ.

II. (1) Translate, with brief notes on the words underlined :—

δεῦρο Μοῦσ' ἐλθὲ φλεγυρὰ πυρὸς ἔχουσα μένος, ἔντονος Ἀχαρνική.
οἷον ἐξ ἀνθράκων πρινίνων φέψαλος ἀνήλατ', ἐρεθιζόμενος οὐρίᾳ ῥιπίδι,
ἡνίκ' ἂν ἐπανθρακίδες ὦσι παρακείμεναι,
οἱ δὲ Θασίαν ἀνακυκῶσι λιπαράμπυκα,
οἱ δὲ μάττωσιν, οὕτω σοβαρὸν ἐλθὲ μέλος, εὔτονον, ἀγροικότερον,
ὡς ἐμὲ λαβοῦσα τὸν δημότην.
οἱ γέροντες οἱ παλαιοὶ μεμφόμεσθα τῇ πόλει.
οὐ γὰρ ἀξίως ἐκείνων ὧν ἐναυμαχήσαμεν
γηροβοσκούμεσθ' ὑφ' ὑμῶν, ἀλλὰ δεινὰ πάσχομεν,
οἵτινες γέροντας ἄνδρας ἐμβαλόντες ἐς γραφὰς
ὑπὸ νεανίσκων ἐᾶτε καταγελᾶσθαι ῥητόρων,
οὐδὲν ὄντας, ἀλλὰ κωφοὺς καὶ παρεξηυλημένους,
οἷς Ποσειδῶν ἀσφάλειός ἐστιν ἡ βακτηρία·
τονθορύζοντες δὲ γήρᾳ τῷ λίθῳ προσέσταμεν,
οὐχ ὁρῶντες οὐδὲν εἰ μὴ τῆς δίκης τὴν ἠλύγην.

(2) Translate and explain the phrases :—*βάμμα Σαρδιανικόν—καταξαίνειν εἰς φοινικίδα—θαλαμιῶν τροποιμένων—φανῶ ταδὶ πολέμια—κλᾶε πρὸς τοὺς Πιττάλου.*

III. (1) Translate :—Herodotus VII. 50, *from* Ἀμείβεται Ξέρξης *to* οὐ μάλα ἐθέλει.

(2) Parse these verbs, and give the Attic equivalents :—*ἀπίκατο—ἀραίρητο—ἐσκευάδατο—παραλαμψομένους—ἐπήσομεν.*

IV. Translate, with brief notes on the words underlined :—

(1) *ταῦτα μέντοι πάντας εἰδότας καὶ λογιζομένους οὐ δεῖ προσέσθαι τὸν πόλεμον εἰς τὴν χώραν, οὐδ' εἰς τὴν εὐήθειαν τὴν τοῦ τότε πρὸς Λακεδαιμονίους πολέμου βλέποντας ἐκτραχηλισθῆναι, ἀλλ' ὡς ἐκ πλείστου φυλάττεσθαι τοῖς πράγμασι καὶ ταῖς παρασκευαῖς, ὅπως οἴκοθεν μὴ κινήσεται σκοποῦντας, οὐχὶ συμπλακέντας διαγωνίζεσθαι. πρὸς μὲν γὰρ πόλεμον πολλὰ φύσει πλεονεκτήμαθ' ἡμῖν ὑπάρχει, ἄν περ, ὦ ἄνδρες Ἀθηναῖοι, ποιεῖν ἐθέλωμεν ἃ δεῖ, ἡ φύσις τῆς ἐκείνου χώρας, ἧς ἄγειν καὶ φέρειν ἔστι πολλὴν καὶ κακῶς ποιεῖν, ἄλλα μυρία· εἰς δὲ ἀγῶνα ἄμεινον ἡμῶν ἐκεῖνος ἥσκηται.*

(2) *ἐκ δὲ τούτων περιγίγνεται ὑμῖν μὲν ἡ σχολὴ καὶ τὸ μηδὲν ἤδη ποιεῖν, ἃ δέδοιχ' ὅπως μήποθ' ἡγήσεσθε ἐπὶ πολλῷ γεγενῆσθαι, τούτοις δ' αἱ χάριτες καὶ ὁ μισθὸς ὁ τούτων.*

V. (1) Answer any *two* of the following questions :—

1. Give a brief narrative of events in Greece between the first and second Persian invasions.
2. Describe carefully, and, if possible, illustrate by a sketch-map, the movements of the fleet and land army of Xerxes from their leaving Therma to the battle of Thermopylae.
3. Give a brief summary of the events from 346 to 340 B.C. What speeches of Demosthenes fall within these years?

(2) Answer any *one* of the following questions :—

1. What does Greek tradition tell us of the means by which the Homeric poems were collected or preserved? How far has modern criticism impugned the value of this tradition?
2. Who were the chief writers of the Old Comedy? Illustrate its characteristics from the *Acharnians*.

Wednesday, 11*th October* 1893.—2.30 *to* 4.30 *o'clock.*

1. Translate :—

ἐννόει δὲ ὅτι καὶ αὐτοὶ οἱ θεοὶ οὕτως ὑποδεικνύουσιν· οἵ τε γὰρ ἄλλοι ἡμῖν τἀγαθὰ διδόντες οὐδὲν τούτων εἰς τοὐμφανὲς ἰόντες διδόασι, καὶ ὁ τὸν ὅλον κόσμον συντάττων τε καὶ συνέχων, ἐν ᾧ πάντα τὰ καλὰ καὶ ἀγαθά ἐστι, καὶ ἀεὶ μὲν χρωμένοις ἀτριβῆ τε καὶ ὑγιᾶ καὶ ἀγήρατον παρέχων, θᾶττον δὲ

νοήματος ἀναμαρτήτως ὑπηρετοῦντα. οὗτος τὰ μέγιστα μὲν πράττων ὁρᾶται, τάδε δὲ οἰκονομῶν ἀόρατος ἡμῖν ἐστίν. ἐννόει δ' ὅτι καὶ ὁ πᾶσι φανερὸς δοκῶν εἶναι ἥλιος οὐκ ἐπιτρέπει τοῖς ἀνθρώποις ἑαυτὸν ἀκριβῶς ὁρᾶν, ἀλλ' ἐάν τις αὐτὸν ἀναιδῶς ἐγχειρῇ θεᾶσθαι, τὴν ὄψιν ἀφαιρεῖται. καὶ τοὺς ὑπηρέτας δὲ τῶν θεῶν εὑρήσεις ἀφανεῖς ὄντας· κραυνός τε γὰρ ὅτι μὲν ἄνωθεν ἀφίεται δῆλον καὶ ὅτι οἷς ἂν ἐντύχῃ πάντων κρατεῖ· ὁρᾶται δ' οὔτ' ἐπιὼν οὔτε κατασκήψας οὔτε ἀπιών. καὶ ἄνεμοι αὐτοὶ μὲν οὐχ ὁρῶνται, ἃ δὲ ποιοῦσι φανερὰ ἡμῖν ἐστι, καὶ προσιόντων αὐτῶν αἰσθανόμεθα. ἀλλὰ μὴν καὶ ἀνθρώπου γε ψυχή, ἢ εἴπερ τι καὶ ἄλλο τῶν ἀνθρωπίνων τοῦ θείου μετέχει, ὅτι μὲν βασιλεύει ἐν ἡμῖν φανερόν, ὁρᾶται δὲ οὐδ' αὐτή. ἃ χρὴ κστανοοῦντα μὴ καταφρονεῖν τῶν ἀοράτων, ἀλλ' ἐκ τῶν γιγνομένων τὴν δύναμιν αὐτῶν καταμανθάνοντα τιμᾶν τὸ δαιμόνιον.

2. Translate into Greek :—

Let me tell you a strange thing too. When they are carrying the body of any Emperor to be buried with the others the convoy that goes with the body doth put to the sword all whom they fall in with on the road, saying: "Go and wait upon your Lord in the other world!" For they do in sooth believe that all such as they slay in this manner do go to serve their Lord in the other world. They do the same too with horses; for when the Emperor dies, they kill all his best horses, in order that he may have the use of them in the other world, as they believe. And I tell you as a certain truth, that when Mongou Kaan died, more than 20,000 persons, who chanced to meet the body on its way, were slain in the manner I have told.—MARCO POLO.

Wednesday, 4th April 1894.—2.30 *to* 4.30 *o'clock.*

I. (1) Translate:—

"Πάτροκλ', ἦ που ἔφησθα πόλιν κεραϊζέμεν ἀμὴν,
Τρωϊάδας δὲ γυναῖκας, ἐλεύθερον ἦμαρ ἀπούρας,
ἄξειν ἐν νήεσσι φίλην ἐς πατρίδα γαῖαν,
νήπιε· τάων δὲ πρόσθ' Ἕκτορος ὠκέες ἵπποι
ποσσὶν ὀρωρέχαται πολεμίζειν· ἔγχεϊ δ' αὐτὸς
Τρωσὶ φιλοπτολέμοισι μεταπρέπω, ὅ σφιν ἀμύνω
ἦμαρ ἀναγκαῖον· σὲ δέ τ' ἐνθάδε γῦπες ἔδονται.
ἃ δεῖλ', οὐδέ τοι ἐσθλὸς ἐὼν χραίσμησεν Ἀχιλλεύς,
ὅς πού τοι μάλα πολλὰ μένων ἐπετέλλετ' ἰόντι·
'μή μοι πρὶν ἰέναι, Πατρόκλεις ἱπποκέλευθε,
νῆας ἔπι γλαφυρὰς, πρὶν Ἕκτορος ἀνδροφόνοιο
αἵματόεντα χιτῶνα περὶ στήθεσσι δαΐξαι'
ὣς πού σε προσέφη, σοὶ δὲ φρένας ἄφρονι πείθεν."

Write a note on *κεραϊζέμεν*. Parse *ὀρωρέχαται*.

(2) Translate, with brief notes :—

(α) *ἔνθ' ἄρα τε φρένες ἔρχαται ἀμφ' ἀδινὸν κῆρ.*
(β) *οἳ βίῃ εἰν ἀγορῇ σκολιὰς κρίνωσι θέμιστας.*

Explain *ἄσπις τερμιόεσσα, ἱερὸν ἰχθύν, ἑτεραλκέα νίκην, αἰγανέης ῥιπή.*

II. (1) Translate :—

ΝΙΚ. ταυτὶ τίνος τὰ φορτί' ἐστί ; ΒΟΙ. τῶδ' ἐμὰ
Θείβαθεν, ἵττω Δεύς. ΝΙΚ. ἐγὼ τοίνυν ὁδὶ
φαίνω πολέμια ταῦτα. ΒΟΙ. τί δαὶ κακὸν παθὼν
ὀρναπετίοισι πόλεμον ἦρα καὶ μάχαν ;
ΝΙΚ. καὶ σέ γε φανῶ πρὸς τοῖσδε. ΒΟΙ. τί ἀδικειμένος ;
ΝΙΚ. ἐγὼ φράσω σοι τῶν περιεστώτων χάριν.
ἐκ τῶν πολεμίων εἰσάγεις θρυαλλίδα.
ΔΙΚ. ἔπειτα φαίνεις δῆτα διὰ θρυαλλίδα ;
ΝΙΚ. αὕτη γὰρ ἐμπρήσειεν ἂν τὸ νεώριον.
ΔΙΚ. νεώριον θρυαλλίς ; οἴμοι· τίνι τρόπῳ ;
ΝΙΚ. ἐνθεὶς ἂν ἐς τίφην ἀνὴρ Βοιώτιος
ἄψας ἂν εἰσπέμψειεν ἐς τὸ νεώριον
δι' ὑδρορρόας, βορέαν ἐπιτηρήσας μέγαν.
κεἶπερ λάβοιτο τῶν νεῶν τὸ πῦρ ἅπαξ,
σελαγοῖντ' ἂν εὐθύς. ΔΙΚ. ὦ κάκιστ' ἀπολούμενε,
σελαγοῖντ' ἂν ὑπὸ τίφης τε καὶ θρυαλλίδος ;
ΝΙΚ. μαρτύρομαι. ΔΙΚ. ξυλλάμβαν' αὐτοῦ τὸ στόμα·
δός μοι φορυτόν, ἵν' αὐτὸν ἐνδήσω φέρων,
ὥσπερ κέραμον, ἵνα μὴ καταγῇ φορούμενος.

Scan the last two lines. What are the most marked points of difference between tragic and comic Iambic metre?

(2) Translate, with *brief* notes :—

(α) ὡς μεμίσηκά σε Κλέωνος ἔτι μᾶλλον, ὃν
κατατεμῶ τοῖσιν ἱππεῦσι καττύματα.
(β) ἄμβατε ποττὰν μᾶδδαν, αἳ χ' εὕρητέ πα.
ἀκούετε δή, ποτέχετ' ἐμὶν τὰν γαστέρα·
πότερα πεπρᾶσθαι χρήδδετ' ἢ πεινῆν κακῶς ;

Give the Attic equivalents of the dialectic forms.

III. Translate :—

(1) Ταῦτά σφι ἠπιώτερα γὰρ τῶν προτέρων καὶ ἦν καὶ ἐδόκεε εἶναι, συγγραψάμενοι ἀπαλλάσσοντο ἐς τὰς Ἀθήνας. ὡς δὲ ἀπελθόντες οἱ θεοπρόποι ἀπήγγελλον ἐς τὸν δῆμον, γνῶμαι καὶ ἄλλαι πολλαὶ ἐγίνοντο διζημένων τὸ μαντήϊον καὶ αἴδε συνεστηκυῖαι μάλιστα· τῶν πρεσβυτέρων ἔλεγον μετεξέτεροι δοκέειν σφι τὸν θεὸν τὴν ἀκρόπολιν χρῆσαι περιέσεσθαι. ἡ γὰρ ἀκρόπολις τὸ πάλαι τῶν Ἀθηνέων ῥηχῷ ἐπέφρακτο. οἱ μὲν δὴ κατὰ τὸν φραγμὸν συνεβάλλοντο τοῦτο τὸ ξύλινον τεῖχος εἶναι, οἱ δ' αὖ ἔλεγον τὰς νέας σημαίνειν τὸν θεόν, καὶ ταύτας παραρτέεσθαι ἐκέλευον τὰ ἄλλα ἀπέντας. τοὺς ὦν δὴ τὰς νέας λέγοντας εἶναι τὸ ξύλινον τεῖχος ἔσφαλλε τὰ δύο τὰ τελευταῖα ῥηθέντα ὑπὸ τῆς Πυθίης,

Ὦ θείη Σαλαμὶς, ἀπολεῖς δὲ σὺ τέκνα γυναικῶν
Ἢ που σκιδναμένης Δημήτερος ἢ συνιούσης.

(2) Ἀμείβετο Γέλων τοισίδε· Ξεῖνε Ἀθηναῖε, ὑμεῖς οἴκατε τοὺς μὲν ἄρχοντας ἔχειν, τοὺς δὲ ἀρξομένους οὐκ ἔξειν. ἐπεὶ τοίνυν οὐδὲν ὑπιέντες ἔχειν τὸ πᾶν ἐθέλετε, οὐκ ἂν φθάνοιτε τὴν ταχίστην ὀπίσω ἀπαλλασσόμενοι καὶ ἀγγέλλοντες τῇ Ἑλλάδι, ὅτι ἑκ τοῦ ἐνιαυτοῦ τὸ ἔαρ αὐτῇ ἐξαραίρηται.

Explain the last words.

IV. Translate:—

(1) *εἰ δ' ἐκ τούτων τὰ δίκαια τίθενται καὶ τὴν εἰρήνην ταύτην ὁρίζονται, ὅτι μὲν δήπουθεν οὔθ' ὅσια οὔτ' ἀνεκτὰ λέγουσιν οὔτ' ὑμῖν ἀσφαλῆ, δῆλόν ἐστιν ἅπασιν, οὐ μὴν ἀλλ' ἐναντία συμβαίνει ταῖς κατηγορίαις ἃς Διοπείθους κατηγοροῦσι καὶ αὐτὰ ταῦτα λέγειν αὐτούς. τί γὰρ δήποτε τῷ μὲν Φιλίππῳ πάντα τἄλλα ποιεῖν ἐξουσίαν δώσομεν, ἂν τῆς Ἀττικῆς ἀπέχηται, τῷ Διοπείθει δ' οὐδὲ βοηθεῖν τοῖς Ὀραξίν ἐξέσται, ἢ πόλεμον ποιεῖν αὐτὸν φήσομεν; ἀλλὰ νὴ Δία ταῦτα μὲν ἐξελέγχονται, δεινὰ ποιοῦσι δ' οἱ ξένοι περικόπτοντες τὰ ἐν Ἑλλησπόντῳ, καὶ Διοπείθης ἀδικεῖ κατάγων τὰ πλοῖα, καὶ δεῖ μὴ ἐπιτρέπειν αὐτῷ. ἔστω, γιγνέσθω ταῦτα, οὐδὲν ἀντιλέγω.*

(2) *ἐγὼ δὲ ἁπάντων ὡς ἔπος εἰπεῖν πολλὴν εἰληφότων ἐπίδοσιν, καὶ οὐδὲν ὁμοίων ὄντων τῶν νῦν τοῖς πρότερον, οὐδὲν ἡγοῦμαι, πλέον ἢ τὰ τοῦ πολέμου κεκινῆσθαι καὶ ἐπιδεδωκέναι. πρῶτον μὲν γὰρ ἀκούω Λακεδαιμονίους τότε καὶ πάντας τοὺς Ἕλληνας τέτταρας μῆνας ἢ πέντε, τὴν ὡραίαν αὐτὴν, ἐμβαλόντας ἀν καὶ κακώσαντας τὴν τῶν ἀντιπάλων χώραν ὁπλίταις καὶ πολιτικοῖς στρατεύμασιν ἀναχωρεῖν ἐπ' οἶκου πάλιν. οὕτω δ' ἀρχαίως εἶχον, μᾶλλον δὲ πολιτικῶς, ὥστ' οὐδὲ χρημάτων ἀνεῖσθαι παρ' οὐδενὸς οὐδὲν, ἀλλ' εἶναί νόμιμόν τινα καὶ προφανῆ τὸν πόλεμον.*

V. (1) Answer any *two* of the following questions:—

1. Sketch the career of Themistocles, and show the important results of his policy upon the balance of power in Greece.

2. Describe the political conditions prevailing in the chief Grecian states at the time of the Persian wars, showing the effect which these conditions exercised upon their foreign policy.

3. Illustrate the relation in which the *ῥήτωρ* and the *στρατηγός* stood to one another in (*a*) the time of Pericles, (*b*) the time of Demosthenes.

(2) Answer *one* of the following questions:

1. Describe briefly the political organisation of Greece as it is indicated in Homer. What traces of it survived in historic times?

2. Give a list of the surviving plays of Aristophanes, arranging them, as far as possible, in the order of their production. In what year was the *Acharnians* produced? Quote any allusions to the special circumstances of the time.

3. Mention some of the most striking differences, in form or substance, between a speech of Demosthenes and modern oratory.

Thursday, 5th April 1894.—3 *to* 5 *o'clock.*

I. Translate:—

Οἶμαι μετ' ὀλίγων Ἀθηναίων, ἵνα μὴ εἴπω μόνος, ἐπιχειρεῖν τῇ ὡς ἀληθῶς πολιτικῇ τέχνῃ καὶ πράττειν τὰ πολιτικὰ μόνος τῶν νῦν· ἅπερ οὖν οὐ πρὸς χάριν λέγων τοὺς λόγους οὓς λέγω ἑκάστοτε, ἀλλὰ πρὸς τὸ βέλτιστον, οὐ πρὸς τὸ ἥδιστον, καὶ οὐκ ἐθέλων ποιεῖν ἃ σὺ παραινεῖς, τὰ κομψὰ ταῦτα, οὐχ ἕξω ο τι λέγω ἐν τῷ δικαστηρίῳ. ὁ αὐτὸς δέ μοι ἥκει λόγος, ὄνπερ πρὸς Πῶλον ἔλεγον· κρινοῦμαι γὰρ ὡς ἐν παιδίοις ἰατρὸς ἂν κρίνοιτο κατηγοροῦντος ὀψοποιοῦ. σκόπει γάρ, τί ἂν ἀπολογοῖτο ὁ τοιοῦτος ἄνθρωπος ἐν τούτοις ληφθείς, εἰ αὐτοῦ κατηγοροῖ τις λέγων ὅτι ὦ παῖδες, πολλὰ ὑμᾶς

καὶ κακὰ ὅδε εἴργασται ἀνὴρ καὶ αὐτούς, καὶ τοὺς νεωτάτους ὑμῶν διαφθείρει τέμνων τε καὶ κάων, καὶ ἰσχναίνων καὶ πνίγων ἀπορεῖν ποιεῖ, πικρότατα πώματα διδοὺς καὶ πεινῆν καὶ διψῆν ἀναγκάζων, οὐχ ὥσπερ ἐγὼ πολλὸ καὶ ἡδέα καὶ παντοδαπὰ εὐώχουν ὑμᾶς· τί ἂν οἴει ἐν τούτῳ τῷ κακῷ ἀπολη-φθέντα ἰατρὸν ἔχειν εἰπεῖν;

2. Translate into Greek :—

From thence we marched through a desolate wilderness, and so arrived at the ocean which goes round the whole world. And while we were going along the shores of the sea, I commanded the phalanx to encamp; and I heard the voice of men speaking in the Greek tongue, but I did not see them, nor did I see anything else in the sea except something like an island, which was not very far from us. Then a certain number of troops desired to go to that island by swimming; and when they had stripped off their clothing and plunged into the sea, beasts in the form of men, but whose bodies were very large, came up from the deep and seized twenty of my soldiers, and plunged down into the depths.—*History of Alexander.*

ENGLISH.

Tuesday, 10*th October* 1893.—9 *to* 11 *o'clock.*

FIRST PAPER.

1. Write an Essay on *either* of these subjects :—

Ariel and Caliban.

Comparison of *Lycidas* with *In Memoriam.*

(*N.B.—An hour to be spent on the Essay.*)

2. Classify the Teutonic languages, and distribute them geographically. Why is English, with a vocabulary so largely non-Teutonic, accounted one of them?

3. Give some account of the ancient doctrine of the Figures of Speech, and comment on that doctrine in its bearings on the theory of Style.

4. Mention, and exemplify or describe, some of the more common faults of syntax and construction of sentences in English writing.

5. No. 1 of the following is a piece of blank verse printed as prose; the others are lines from English poems. Re-write No. 1 in its proper verse form, without changing the words or the order of the words; and give the metrical formula and the prosodic name of each of the others :—

(1) If I imagine that all the world's a play, and men's affairs but shifting of the scenes, and if I keep my cushioned chair here, whence I may at ease look at the comedy, and have my laugh at the variety and throng of humours and dispositions that come jostling in upon the stage beneath, why trouble me to change my mood and habit?

(2) Tender cares and pleasing pain.
(3) Learn wisdom from those that are older.
(4) Where the king and his people were slaughtered together.
(5) To scorn the sordid world and unto heaven aspire.
(6) Only those that brave its dangers comprehend its mystery.
(7) Wandering all alone amid lairs of the savagest creatures.

Tuesday, 10*th October* 1893.—11.30 *to* 1.30 *o'clock.*

SECOND PAPER.

1. Give some account of the *Piers Plowman* poems, (1) in respect of their purport and spirit; (2) in respect of their versification.

2. "From Chaucer's death to the appearance of Spenser the true poetic succession to Chaucer was rather in Scotland than in England." —Illustrate this statement, or its plausibility, by making out, in parallel columns, a list of the chief English poets of the range of time indicated, and a list of the chief Scottish poets of the same. Add a brief descriptive note to each name mentioned.

3. What metrical tests are used to fix the dates of Shakespeare's plays? Apply them to *Love's Labour's Lost* and *The Tempest*.

4. What was the occasion of the *Areopagitica*, and what doctrine does it propound? Add a general remark or two on the prose style of the work; and refer, if you can, to some particular passage.

5. Describe, with mention of names, some of the characteristics of the English Drama of the Restoration.

6. Explain carefully the following extract:—

> "Let Love clasp Grief lest both be drowned,
> Let darkness keep her raven gloss;
> Ah, sweeter to be drunk with loss,
> To dance with death, to beat the ground,
> Than that the victor Hours should scorn
> The long result of love, and boast,
> 'Behold the man that loved and lost,
> But all he was is overworn.'"

7. Explain more fully De Quincey's meaning in the following; and compare its definition of Rhetoric with the traditional and orthodox definition:—

> "Rhetoric is the art of aggrandizing and bringing out into strong relief, by means of various and striking thoughts, some aspect of truth which of itself is supported by no spontaneous feelings, and therefore rests upon artificial aids."

8. Name some of the Eighteenth Century English poets to whom Wordsworth refers in his Prose Prefaces, and indicate the nature of his criticisms of them.

Monday, 2nd April 1894.—9 *to* 11 *o'clock.*

FIRST PAPER.

1. Write an Essay on *one* of these subjects :—
   The island in *The Tempest* before the shipwreck.
   Occasion and Doctrine of the *Areopagitica.*
   Impressions of Wordsworth from the First Book of *The Excursion.*
   (*N.B.—An hour to be spent on the Essay.*)

2. Give some examples (1) of hybrid words in English, (2) of words of Scandinavian origin ; and write philological notes on the following : —*orchard*, *brother*, *rough*, *child*, *children*, *barley*, *malison*, *them.*

3. Explain and exemplify these terms in Rhetoric :—*Metonymy*, *Synecdoche*, *Apostrophe*, *Inversion*, *Assonance*, *Alliteration.*

4. Correct the following piece of bad English, pointing out in each case the nature of the fault :—

"You told me yesterday that our friend *A* was leaving town in a whisper. Will we ever understand the cause? I could not solve the problem then, being too stiff ; but I now think I have hit upon a clue to the mainspring of the affair. You remember that letter which we allowed him to put back into his pocket. Well, a man who called him his friend, who never meant him to see the letter, told me that, when he found he knew the contents, he was quite outrageous. Being his best friend, it must have been, primarily, roused rage, and, secondarily, simple sanguineness, that made him act so. But it is, altogether, one of the oddest incidents which has happened within my recollection."

5. No. 1 of the following is a piece of blank verse, printed as prose ; the others are lines from English poems. Rewrite No. 1 in its proper form of blank verse, without changing a word or the order of the words ; and give the metrical formula and the prosodic name of each of the others :—

(1) "Set ye no store on that delusive phantom which they call success : 'tis gained by weary days and nights, by fevered brows and aching hearts ; 'tis gained by loss of truer joy. There comes a season when, looking backward through a crowded past, we see all we have missed, and recognise that we have sold our heritage, and that our life is over."
(2) "All coiled into itself and round as sleeps the snake."
(3) "Just for a handful of silver he left us."
(4) "But the loveliest garden grows hateful."
(5) "Woe is me, Alhama."
(6) "Adds fragrance and fruit to the tree."
(7) "Dead the warrior, dead his glory, dead the cause in which he died."
(8) "Now to the scream of a madden'd beach dragg'd down by the wave."

Monday, 2nd April 1894.—11.30 *to* 1.30 *o'clock.*

SECOND PAPER.

1. Compare Barbour, Chaucer, and Langland (1) in respect of their themes; (2) in respect of the kinds of verse they employed.

2. Write notes on the authorship and purport of the following:—*The Mirror for Magistrates; The Governor; Utopia; Palace of Honour; House of Fame; Apology for Poetry; King's Quair; Annus Mirabilis.*

3. Trace the history of the English Drama from Nicholas Udall to Marlowe.

4. *Either* (*a*) write an appreciation of Milton's prose style, making special reference to the *Areopagitica*; *or* (*b*) explain what De Quincey meant by a "rhetorical" style, and name the English prose-writers mentioned by him as representatives of this style.

5. Give some account of the literary lives of Ben Jonson and Dryden.

6. Describe the peculiar versification of *Lycidas*, and compare it with the versification of *In Memoriam*.

7. What literary affectations of Shakespeare's time does he satirise in the characters of Don Armado and Holofernes in *Love's Labour's Lost?* Illustrate by quotation, if you can.

8. On what grounds does Wordsworth justify his selection of themes of humble and rustic life for his poems?

SANSKRIT.

Thursday, 22nd March 1894.—9 *to* 11 *o'clock.*

I. Translate into English:—

(1) Hitopadeśa (ed. Johnson, 1867), book I., lines 306-19; with note on "*mayā tavānucareṇa sarvathā bhavitavyam*" (l. 312).

(2) Ib., I., verses 6, 14, 69, 83, 166, 220; with notes on "*nīrujas tu kim aushadhaiḥ*" (v. 14), and "*bahulībhavanti*" (v. 220).

(3) Nalopākhyānam (Bombay Sanskrit Series), VIII., verses 11-18; with note on "*vinaśet*" (v. 15).

(4) Ib., X., verses 8-13; with note on "*śete*" (v. 8).

II. (1) Nom. singular; nom. and acc. plural of *puṃs, śvan, pathin, vidvat, yuvan, sakhi.*

(2) Instrum., gen., loc. singular of *hāla, rajju* (f.), *strī, sakhī, pati, idam* (m. f.), *aham.*

(3) Give the Sanskrit for 746; and the comparative and superlative of *yuvan, vṛiddha.*

(4) 3rd sing. and plur. Present indicative, and Imperfect Parasmaip.

of *śru* (5), *kṛi* (8), *bhuj* (7); and the same persons Ātmanep. of *dhā* (3), *rudh* (7).

(5) 1st sing., and 3rd plur. Optative and 2nd sing. Imperative Parasmaip. and Ātmanep. of *āp* (5), *sthā* (1), *jñā* (9), *grah* (9).

(6) 3rd sing. Perfect, periphr. Future, and Aorist Parasmaipada of *ji*, *gam*, *nah*, *bhū*, *vac*, *kṛi*.

(7) Infinitive, past participle, and gerund of *sṛij*, *bhid*, *grah*, *dhā*, *pra-kṛi*, *duh*.

Thursday, 22nd March 1894.—11.30 *to* 1.30 *o'clock.*

I. Translate into Sanskrit :—

There was a hunter, named Bhairava, residing in a certain village. One day, having a craving for meat, he took his bow, and went to the Vindhyā forest. Here a deer was killed by him. Having taken the deer, whilst walking along he saw a boar of terrible aspect, with blood-shot eyes. Thereupon, laying down the deer on the ground, he hit the boar with a sharp arrow; and as the boar came rushing on, making a terrible sound, the hunter was struck in the belly, and fell to the ground like a tree cut down. And by the trampling of their feet a snake also was killed. Meanwhile a jackal, named Long-yell, whilst prowling about in quest of food, saw these four, the deer, hunter, snake and boar, lying on the ground. Whilst looking at them, he said to himself, "Oh, what a lucky thing! A great feast has fallen to my lot: well, with their flesh three months will pass pleasantly with me. I will first eat this unsavoury bow-string." Having said this, he did so. Then, on the bowstring being bitten through, Long-yell, being smitten in the heart by the bow suddenly springing upwards, met his death.

Even to an enemy who has come to one's house, suitable hospitality should be shown: the tree withholds not its shade from the wood-cutter standing by its side.

II. (1) Write short notes on *Atharva-veda*, *Rāmāyaṇa*, *Kālidāsa*.

(2) Assign the following works to their respective departments of literature, and give the names of the authors wherever they are known :—*Aitareya-brāhmaṇa*, *Mṛicchakaṭikā Gītagovinda*, *Bhagavad-gītā*, *Pañcatantra*, *Amarakosha*, *Mahābhāshya*, *Meghadūta*.

(3) Mention European words etymologically connected with any twelve of these :—*jīv*, *pati*, *sakhi*, *visha*, *bhid*, *keśa*, *patnī*, *ish*, *vāñc*, *dīrgha*, *laghu*, *yāvat*, *smṛi*, *bhuj*, *bhaj*, *śvas*, *śūnya*, *rudhira*.

DEPARTMENT OF MENTAL PHILOSOPHY.

LOGIC AND PSYCHOLOGY.

Friday, 13th October 1893.—11.30 *to* 1.30 *o'clock.*

FIRST PAPER.

1. Define Inference. Classify as minutely as you can the various kinds of Inference.

2. Examine the arguments for and against the quantification of the predicate.

3. Name the mood and figure of the following argument, and show by both methods of reduction that it is valid:—Some doctrines cannot be believed, for they are not verifiable in experience, and what we can believe must appeal to us in that way.

4. What is the principle of the hypothetical judgment? Name the usual fallacies of hypothetical syllogisms. What are the corresponding fallacies in categorical syllogisms?

5. When is the Method of Concomitant Variations the only means of inductive investigation? Give three illustrations, and say in each case how far a causal inference may be drawn.

6. Examine whether the following arguments are valid, and state the logical principles which justify or condemn them:—

(*a.*) Democracy is not a perfect form of government, for under it there are able men who do not get power, and so it allows men to get power who are not able.

(*b.*) None but members are admitted to the reserved seats; and so I have become a member in order to secure one of them.

(*c.*) "There are no great nations of antiquity but have fallen to the hand of time; and England must join them to complete the analogy of the ages. Like them she has grown from a birth-time of weakness and tutelage to a day of manhood and supremacy, but she has to face her setting. Everything that grows must also decay."

7. (*a*) State Descartes's rules of logical method, and (*b*) annotate the following:—"I enquired in general into what is essential to the truth and certainty of a proposition; for since I discovered one which I knew to be true, I thought that I must likewise be able to discover the ground of this certitude."

Friday, 13th October 1893.—2.30 *to* 4.30 *o'clock.*

SECOND PAPER.

1. Distinguish the mental operations collectively described as memory; investigate the conditions of a good memory with respect to each of them.

2. Give a careful statement of the elements involved in our knowledge of space.

3. Give Locke's view about abstract ideas, and explain Berkeley's statement that "all knowledge and demonstration are about universal notions," not about abstract ideas.

4. Summarise the argument of the dialogue on Divine Visual Language.

5. Give an account of the doctrines of Substance and of Cause that we meet with in Descartes, Berkeley, and Hume.

6. Explain and illustrate the following :—"Locke was apt to regard presuppositions of every kind as prejudices, and specially when expressed in the form of abstract principles; and he failed to acknowledge principles that are necessarily involved in our mental operations, but which are not consciously patent, at least in their abstract form, in the experience of most men."

Tuesday, 3rd April 1894.—11.30 *to* 1.30 *o'clock.*

FIRST PAPER.

1. What is meant by the Predicables? Name and define them. What is their value for a scientific classification?

2. Define Judgment. May the judgment be treated as an equation for logical purposes? Show that your definition holds for conditional and disjunctive judgments.

3. Define Figure. Why are three of the figures called imperfect? Discuss the objections that have been taken to the fourth figure.

4. What variety of meaning has been assigned to the word Cause? What is its meaning in Inductive Logic? What difference is there between mental and physical causation?

5. Explain the following expressions :—(*a*) perfect induction, (*b*) plurality of causes, (*c*) reasoning from analogy, (*d*) residual phenomenon.

6. Examine the following arguments :—

(1) Warmth is agreeable, and therefore, by obversion, cold is disagreeable.

(2) If we agree that the gods are blessed, that no one can be blessed who is without virtue, that there is no virtue where there is no reason, nor reason anywhere but in human form, we must also agree that the gods exist in the likeness of men.

(3) Definition by comparison is not a good thing, for, if things are unlike, they should not be compared, and if like, it is better to deal with the things themselves than with their resemblances.

7. State Descartes's arguments for the existence of God, and estimate their validity.

Tuesday, 3rd April 1894.—2.30 *to* 4.30 *o'clock.*

SECOND PAPER.

1. Give an account of the end-organ of the sense of touch. What part does it play in producing our knowledge of (1) resistance, (2) space?

2. Analyse your mental activity during your reading of the last question. Explain in detail how the various psychological elements came to be selected and united in a single act.

3. State the two main laws of Association, and discuss the possibility of reducing them to a single formula.

4. State and examine the difficulties that have to be met in explaining personal identity.

5. What did Locke mean by innate ideas? What account does he give of our knowledge of God, self, and nature?

6. Give a critical estimate of Berkeley's theory of knowledge. How did he meet the following objections to it? (1) that we naturally think the earth is at rest; (2) that the matter of dreams would be as real as the things of sense; and (3) that if space were only an idea the mind would be extended?

MORAL PHILOSOPHY.

Saturday, 14th October 1893.—9 *to* 11 *o'clock.*

FIRST PAPER.

1. Distinguish the moral quality from the other qualities of a human action. Have all human actions moral quality? Discuss doubtful cases.

2. On what ground would you attempt a classification of virtues, and why? Give the outline of such a classification.

3. How does the hypothesis of the evolution of moral ideas and sentiments from experience, affect the doctrine of absolute moral standards?

4. Is there such a thing as a disinterested action?

5. For what purpose is it sought to formulate an ethical end? Criticise "self-realisation" as the end.

6. Give a careful analysis of our mental action, (1) when we do right "against our inclination," (2) when we yield to our inclinations "against our better judgment."

7. State concisely the ethical arguments which demonstrate the existence and the attributes of God.

Saturday, 14*th October* 1893.—11.30 *to* 1.30 *o'clock.*

SECOND PAPER.

1. Give Butler's arguments against the view that benevolence is "only the love of power, and delight in the exercise of it."
2. What meanings of the word "nature" does Butler distinguish? How does he define Conscience, and how does he argue its "natural supremacy"?
3. Sketch the history of Utilitarianism in modern lines?
4. Examine Mill's doctrine of "the ultimate sanction of the greatest happiness morality."
5. Compare the ethical doctrines of the Stoics and the Epicureans.
6. Explain the views of Kant upon (*a*) the criterion of moral actions, (*b*) the proper motive to moral actions, (*c*) will.
7. Show how modern ethical theories have been affected by doctrines concerning desire and will.

Wednesday, 4*th April* 1894.—9 *to* 11 *o'clock.*

FIRST PAPER.

1. Show the mutual dependence of the problems of Moral Philosophy. Explain in detail, "Moral Philosophy must take personality as its supreme and guiding principle."
2. Explain, by reference to the nature of will and habit, how it is that reformation becomes more difficult with advance of years.
3. Investigate the connection between the explanation of all mental operations by the association of ideas, and (1) utilitarianism, (2) determinism.
4. Explain the evolution of moral feeling and practice (1) in the individual, (2) in the race.
5. Self-approbation involves both judgment and sentiment; what is the test of the validity of the one, and of the healthy action of the other?
6. Give a psychological analysis of shame, shamelessness, humility, humiliation, self-deception.
7. What are the problems of the Metaphysic of Ethics, and what are the data for their solution?

Wednesday, 4*th April* 1894.—11.30 *to* 1.30 *o'clock.*

SECOND PAPER.

1. Give a critical account of the more important theories which rest our knowledge of moral distinctions upon aesthetic feelings.
2. Examine Butler's treatment of self-love, benevolence, and conscience.

3. Remark on the consistency of J. S. Mill's views on (1) the difference of quality among pleasures, (2) the disinterested character of virtuous desires.

4. Give some account of the ethics of Hegel.

5. Explain the Stoic and the Epicurean conceptions of nature, and show their connection with Stoic and Epicurean ethics.

6. Give an account of the treatment of Justice in Plato and in Aristotle.

7. Write notes upon the ethical doctrines of Cudworth, Hutcheson, and Hume.

POLITICAL ECONOMY.

Monday, 2nd April 1894.—2.30 *to* 4.30 *o'clock.*

FIRST PAPER.

(*Answer* EIGHT *Questions only.*)

1. State and criticise Mill's definition of wealth.

2. Explain what is meant by marginal utility. To what extent, if any, does the conception enable utility to be measured by price?

3. Explain the principle of division of labour, and notice some of the disadvantages with which it may be associated.

4. State the chief elements which affect the supply of loanable capital. What would be the effect on such supply of a fall in the rate of interest?

5. Discuss the proposition that high prices make high wages, and consider how far Mill's treatment of the question was vitiated by the wages fund theory.

6. Examine "the tendency of profits to equality"; and show the application in taxation.

7. State, carefully, the law of diminishing returns. Distinguish between the statical and dynamical application of the law.

8. Do the interests of the landlord, in securing a maximum rent, ever conflict with those of the community? Illustrate your answer.

9. Why are the prices in the same market equal? Show how market price is determined by the law of supply and demand.

10. Explain shortly the leading characteristics of modern socialism, and state some of the chief arguments against it.

Tuesday, 3rd April 1894.—9 *to* 11 *o'clock.*

SECOND PAPER.

(*Answer* EIGHT *Questions only.*)

1. Explain the quantity theory of money. What are the assumptions upon which it rests?

2. Distinguish between "value of money" in the economic and

money market sense. Is there any connection between the different meanings of the terms ; and if so, what ?

3. What are the chief causes of commercial crises ?

4. Explain how a metallic reserve is essential under a highly developed system of credit.

5. Is the premium on gold an exact measure of the depreciation of in inconvertible paper currency ? Examine the question on the hypothesis (*a*) of an isolated country ; (*b*) of a country engaged in a foreign war.

6. State accurately what is meant by bimetallism, and explain the nature and limits of the "compensatory action" by which it is argued an international ratio would be maintained.

7. Trace the possible effects on the trade between gold and silver using countries of a fall in the gold price of silver.

8. Explain generally Adam Smith's position with regard to the policy of free trade ; and state and discuss the exceptions which he makes.

9. Examine the possible effects upon general prices of the cheapening of the cost of production of an exported commodity.

10. What is the probable incidence of a tithe exacted from the gross produce of the soil of an isolated country ? What were the answers given to this question by Mill and Adam Smith respectively ?

THEORY, HISTORY, AND ART OF EDUCATION.

M.A. and SCHOOLMASTERS' DIPLOMA EXAMINATION.

Friday, 30th March 1894.—9 *to* 11 *o'clock.*

FIRST PAPER.

1. Show that the Educative Process, properly understood, gives a systematic view of the whole field of Education.

2. Show that the Doctrine of Method must rest on the doctrine of mind as a growing mind.

3. Define the Sense-Concept, and show in this connection that the Object lesson is a training and discipline of Intelligence.

4. Exhibit the dependence of the deductive syllogism on the General Concept or General Proposition.

5. Show that the process of Causal induction is an analytic-synthetic process.

6. Distinguish between the Real (Instruction) and the Formal (Discipline) in Moral Education.

7. Take any four Rules of Method and briefly connect them with their psychological bases.

8. Explain Association and Assimilation as a condition of knowing anything new.

Friday, 30*th March* 1894.—11.30 *to* 1.30 *o'clock.*

SECOND PAPER.

1. Explain fully the mode in which Comenius proposes to apply *Method* to the teaching of the Sciences and of Morality. Deduce four rules applicable to the teaching of the Sciences.

2. What does the Didactic enjoin (1) as to the forming of "mind, hand, and tongue"; (2) as to *preparing* pupils' minds for instruction; (3) as to the mental powers to be successively called into exercise in the Mother School, the Vernacular School, and the Gymnasium respectively?

3. What, according to the *Thoughts*, is the "great principle and foundation of Virtue"? Show how, in accordance therewith, Locke proposes to deal with the Self-will or "Craving" of children. How is Hardiness to be effected?

4. Expand and illustrate what is said, in the *Conduct*, of the following:—(1) "Knowing is seeing"; (2) "Use legs and have legs"; (3) "Teeming truths"; (4) "Bottoming."

5. In what sense does Locke maintain that Association is a cause of mistake and "a disease of the mind"? What does he rely on for averting or curing the evil?

6. Indicate the different ways in which Language as Substance may be handled by the teacher for the training of mind. Give fuller details as to one of them.

7. Sketch a Course of Instruction in Language as a Formal Discipline. What are the specific difficulties to be encountered? Name the principal Rules of Method falling to be constantly applied in it.

8. Contrast the Hellenic and Roman ideas of education; *or* show the relation between the Baconian scientific movement and the rise of Scientific Method.

SCHOOLMASTERS' DIPLOMA.

Friday, 30*th March* 1894, *at* 3 *o'clock.*

THIRD OR ADDITIONAL PAPER.

1. Give an outline of Milton's Scheme of Education, under the heads of Studies and Exercise.

2. What errors in the teaching of Languages and Arts respectively are animadverted on in the *Tractate*? What is proposed as a rational and profitable way of dealing with them?

3. Give the substance of Quintilian's remarks (in Books I. and II.) on the necessity of the study by the teacher of his pupil's disposition and ability. How is the knowledge thus obtained to be utilised?

4. On what qualities of Good Reading does Quintilian most insist? What is his remedy for exuberance in the compositions of young boys?

What is his opinion of the amount of assistance to be given in Composition exercises, and how are boys to be saved from despondency as to their powers?

5. What qualities, according to Quintilian, are most to be prized in a teacher? What ought to be the teacher's attitude and relations with his pupils?

N.B.—Thesis to be handed in on Tuesday—"*The Order of Growth of the powers of Mind.*"

DEPARTMENT OF SCIENCE.

PURE MATHEMATICS.

Thursday, 12*th October* 1893.—9 *to* 11 *o'clock.*

1. In any plane triangle the greater angle has the greater side opposite.

Two circles intersect in O; find when the double chord through O is a maximum.

2. The sum of the squares on the two sides of a triangle is equal to twice the square on the median from the vertex together with twice the square on half the base.

The sum of the squares of the distances of a point P from the vertices of a triangle exceeds the same sum for the mean centre (centroid) O by three times the square on OP.

3. Find the locus of points of equal potency with respect to two circles.

Two tangents are drawn from a point on the radical axis of two circles, one to each circle; show that their points of contact are collinear with a centre of similarity of the circles.

4. The angle subtended by any chord of a circle at the circumference is half the angle subtended at the centre.

AB are fixed points on a circle, CD a movable chord of fixed length; find the locus of the intersection of AC and BD.

5. Prove the characteristic properties of the nine-points-circle of a triangle.

E, F are the projections of the vertices B, C of a triangle on the sides CA, AB respectively, and L is the middle point of BC; show that E and F are equidistant from L.

6. Construct an isosceles triangle having each angle at the base double the vertical angle.

Show that the diagonals of a regular pentagon form another regular pentagon; and that the side of the new pentagon is to the side of the old in the duplicate ratio of the side to the diagonal of a regular pentagon.

7. Give the pantagraph-definition of similar and similarly situated

figures ; and show that the curve which is similar and similarly situated to a circle is another circle.

Show that the similar and similarly situated curve to a parabola is a parabola.

8. If two intersecting straight lines in space be parallel and like directed with two other intersecting straight lines, show that the angles included by the two pairs are equal.

$ABCD$, $A'B'C'D'$ are the two ends (correspondingly lettered) of a rectangular parallelopiped. Find the perpendicular distance between the edge AA' and the diagonal BD' in terms of the edges of the parallelopiped.

9. Find an expression for the volume of a right circular cone in terms of the radius of its base and the length of its generating line.

A cone whose vertical angle is a right angle touches a sphere : find the ratio of the areas of the two zones into which the circle of contact divides the spherical surface.

10. The tangent at any point of a parabola bisects the angle between the focal distance and the perpendicular on the directrix.

Given the directrix and two tangents, find the focus of the parabola and the points of contact of the tangents.

11. Show that the tangents drawn from any external point T to an ellipse make equal angles with the focal distances of T.

Given two tangents to an ellipse, one of the foci and the major-axis, to construct the centre.

12. Find expressions for the radii of the escribed circles of a triangle in terms of a, B, C.

If P be the orthocentre of the triangle ABC, show that

$$PBC \cot A = PCA \cot B = PAB \cot C.$$

Thursday, 12th October 1893.—11.30 *to* 1.30 *o'clock.*

1. Establish the addition rule for calculating the coefficients in the expansion of $(a+b)^n$.

Find the coefficient of x^3 in $(1+2x)^8+(1+2x)^9$.

Expand and arrange the following according to powers of x, and show that the absolute term vanishes if $a+b+c=0$:—

$$(b-c)(x-a)^3+(c-a)(x-b)^3+(a-b)(x-c)^3.$$

2. Construct a quadratic integral function of x which has the values 0, 1, 2 when x is equal to 1, 2, 4 respectively.

Resolve into linear factors—

$$x^3-y^3 \text{ and } x^2+y^2+z^2+\frac{b^2+c^2}{bc}yz+\frac{c^2+a^2}{ca}zx+\frac{a^2+b^2}{ab}xy.$$

Given that $x+y+z$ is a factor of Σx^3-3xyz, determine the other factor by the method of indeterminate coefficients.

3. Show that the modulus of the product of two complex quantities

is equal to the product of their moduli; and that the modulus of their sum is in general less than the sum of their moduli.

Construct by Argand's diagram the square root of a given complex quantity.

If ω be a cube root of $+1$, show that

$$1/(1+\omega)+1/(1+\omega^2)=1.$$

4. Show that the sum of two proper algebraical fractions is a proper algebraical fraction.

Simplify $$\left[\frac{1/x^2+1}{1/x^2-1}+\frac{1/x^2-1}{1/x^2+1}\right]$$
$$\div[8/\{(x+1)/(x-1)+(x-1)/(x+1)\}\{x^2+1/x^2-2\}].$$

Resolve $(5x^2-8x-1)/(x-1)^2(x-2)$ into partial fractions.

5. Show that a quadratic surd is not rationally expressible in terms of a dissimilar quadratic surd.

Find a rationalising factor of $1+3x^{\frac{1}{3}}+x^{\frac{2}{3}}$, and give the rationalised product.

Or, as an alternative :—

Show that the equation to a straight line can in general be put into the form $x/a+y/b-1=0$, when a and b are its intercepts on the co-ordinate axes. What is the exceptional case?

Find the equation to the straight line which passes through the intersection of $3x-5y+1=0$, $2x-y-1=0$, and bisects the line joining the points $(0, 3)$, $(-5, 0)$.

6. Assuming the sum of the first powers and the sum of the squares of the first n integers deduce sum of their cubes.

Sum to n terms the series

$$(1+x)+(2+x^2)+(3+x^3)+\ldots\ldots;$$
$$1\cdot3+3\cdot5+5\cdot7+7\cdot9+\ldots\ldots$$

7. If x and y are each one-valued functions of the other, and each is infinite when the other is equal to 1, and $y=0$ when $x=0$, find the relation between them.

Solve the following :—

$$1/\{x+1-\sqrt{(x^2+2x)}\}+1/\{x+1+\sqrt{(x^2+2x+2)}\}=1;$$
$$1/x+1/y=5,\ 6(x^2-y^2)=5xy.$$

8. Find an expression for the number of n-permutation of n things, p of which are alike, q alike, r alike, etc., and apply your result to find the coefficient of $a^rb^sc^t$ in the expansion of $(a+b+c)^n$, n being a positive integer.

Write down in any form the coefficient of x^8 in the expansion of $(1+2x+x^3)^{20}$.

Or, as an alternative :—

Establish the rule for changing the base of a table of logarithms.

If $c^2=a^2+b^2$, show that

$$2(1-1/\log_c b)=1/\log_{1-a/c} b+1/\log_{1+a/c} b.$$

9. Trace the graph of $y=(ax+b)/(cx+d)$ for different values of the constants. What is the condition that y is independent of x, and what is then the graph?

Show that if $ad=bc$, then

$$\frac{ac(b+d)+bd(a+c)+x(ac+bd+ad+bc)}{(a+c)(b+d)+x(a+b+c+d)}$$

is independent of x.

10. Express $\tan\frac{1}{2}\theta$ in terms of $\tan\theta$: and determine the ambiguous sign when $\theta=160°$.

Simplify

$$(\sin^2\theta-\sin^2\phi)\cot(\theta+\phi)+(\cos^2\phi-\cos^2\theta)\cot(\theta-\phi).$$

Find all the values of θ that satisfy the equation

$$\cos^2\theta=1-2\sin(\tfrac{1}{4}\pi+\alpha)\cos(\tfrac{1}{4}\pi-\alpha)\sin\theta+\sin 2\alpha.$$

11. Express one side of a triangle in terms of the other two and the contained angle.

Show, geometrically or otherwise, that

$$\sin^2(\alpha+\theta)+\sin^2(\beta+\theta)-2\sin(\alpha+\theta)\sin(\beta+\theta)\cos(\alpha-\beta)$$

is independent of θ.

12. On the hypotenuse of a right-angled triangle ABC, AD, and BE are cut off equal to AC and BC respectively ; show that $DE^2=2AE.BD$.

Hence show that, if a right-angled triangle have commensurable sides, they are in the proportion $\alpha^2+\beta^2:\alpha^2-\beta^2:2\alpha\beta$, where α and β are positive integers.

Or, as an alternative :—

Find the equation to the tangent to the parabola $y^2=4a(x-a)$.

Deduce the equation to the locus of the middle point of the part of the tangent intercepted between the parabola and its directrix, and roughly trace the locus.

Friday, 6th April 1894.—9 *to* 11 *o'clock.*

1. Two triangles are congruent if two angles of the one are equal to two angles of the other, and the sides opposite a pair of equal angles are equal.

Find in two parallel straight lines two points equidistant from a given point and subtending a right angle thereat.

2. Show that the medians of a triangle are concurrent ; and that their sum is less than the perimeter, and greater than $\frac{3}{4}$ of the perimeter.

Given the middle points of the sides of a triangle, to construct it.

3. Show that the images D, E, F of the orthocentre of a triangle in the sides lie on the circumscribing circle; and that the orthocentre is the in-centre of DEF.

Given the angle A of a triangle, and the projections of the orthocentre on the sides AB, AC, find the locus of the projection of the orthocentre on the side BC.

4. If a straight line is divided at any internal point, express the rectangle contained by the parts in terms of the squares on the whole line and the parts.

Show that a rectangle of given perimeter has maximum area when it is a square.

5. Construct a square equal to a given rectangle.

Construct a right-angled triangle, given the sum of the hypotenuse with each side. Under what circumstances does the construction fail?

6. The internal and external bisectors of the vertical angle of a triangle divide the base in the ratio of the sides.

Show that the locus of a point which moves so that the ratio of its distances from two fixed points is constant, is a circle.

7. Show how to inscribe a regular pentagon in a circle.

Prove that every diagonal of a regular pentagon divides it into two areas whose ratio is the duplicate of the ratio of the diagonal to a side of the pentagon.

8. Show that two similar polygons can always be placed in two ways, so that the lines joining corresponding vertices are concurrent. (Euclid's Definition of Similarity to be adopted.)

A and B are moveable points on two fixed straight lines OX, OY, such that AB is always parallel to a fixed straight line. If PA and PB be perpendicular to OX and OY respectively, find the locus of P.

9. Define the "Radian" (unit of circular measure), and show that it is a fixed angle, by finding its value in degree measure to the nearest minute.

The radius of the base of a right circular cone is 2 feet and its vertical angle is a right angle; calculate the area of its curved surface to three decimal places.

10. A cylinder circumscribes a sphere. Prove that any two planes perpendicular to the axis of the cylinder and cutting the sphere cut equal zones from the sphere and cylinder. If the planes are oblique to the axis of the cylinder, find the relation between the zones.

Or, as an alternative,

The inverse of a circle is a circle or a straight line. Prove that two intersecting circles may be inverted into two straight lines: what do a series of circles cutting them orthogonally become by this inversion?

11. Show that the locus of the projection of a focus upon the tangent to a conic section is a circle. What is the special form of this theorem for the parabola?

Given the focus and two tangents to a parabola, to construct it.

12. Find an expression for all angles with a given secant. Express $\sin\theta$ and $\cos\theta$ in terms of $\tan\theta$, θ lying between $\frac{3\pi}{2}$ and 2π.

Prove that

$$\cos 4\theta = 8\cos\left(\theta - 3\frac{\pi}{8}\right)\cos\left(\theta - \frac{\pi}{8}\right)\cos\left(\theta + \frac{\pi}{8}\right)\cos\left(\theta + 3\frac{\pi}{8}\right).$$

and solve the equations

$$\text{(i)}\quad \sin 3\theta\cos^3\theta + \cos 3\theta\sin^3\theta = \frac{3}{4}$$

$$\text{(ii)}\quad 4\sin^4\theta + \sin^2 2\theta = 4.$$

Friday, 6th April 1894.—11.30 *to* 1.30 *o'clock.*

1. Write down the most general homogeneous rational integral function of x, y, z of degree 3. What is its form if the condition is added that it shall be symmetrical? Find the relations among the coefficients of the latter in order that it may be divisible by $x+y+z$.

2. Show that $\frac{x^2+4x+1}{x^2+6x+1}$ cannot be $=\frac{2}{3}$ for any real value of x, and trace the graph of the function.

Show that this fraction and $\frac{x^2+2x-2}{x^2+4x-4}$ have the same range of values.

3. Determine two proper fractions with linear denominators whose difference is $\frac{x}{x^2-11x+30}$.

Solve the equations

$$\text{(i)}\quad \frac{1-ax}{a-x} + \frac{1-bx}{b-x} + \frac{1-cx}{c-x} = a+b+c\,;$$

$$\text{(ii)}\quad x^3 - 2x + 1 = 0\,;$$

$$\text{(iii)}\quad \frac{3y+2}{y+1} = \frac{3x+1}{x+1} = \frac{2x+y}{x+y}.$$

4. Show that every rational function of $\sqrt{p}$ and $\sqrt{q}$ can be reduced to the linear form $A + B\sqrt{p} + C\sqrt{q} + D\sqrt{p}\sqrt{q}$ where A, B, C, D are rational.

Reduce the following to linear forms :—

(α) $(1+\sqrt{p}+\sqrt{q})/(1+\sqrt{p}+\sqrt{q}+\sqrt{p}\sqrt{q}) - (1-\sqrt{p}-\sqrt{q})/(1-\sqrt{p}-\sqrt{q}+\sqrt{p}\sqrt{q})$;

(β) $\sqrt{(12-4\sqrt{3}-4\sqrt{5}+2\sqrt{15})} - \sqrt{(12+4\sqrt{3}+4\sqrt{5}+2\sqrt{15})}$;

(γ) $1/(1+2^{\frac{1}{3}}+3^{\frac{1}{3}})$.

5. Show that an integral equation of the n^{th} degree cannot have more than n roots. Assuming that there are n roots, find relations connecting the coefficients of the equation with its roots.

If α, β, γ be the roots of $x^3-4x^2+5x-3=0$, calculate the value of $\beta^2\gamma^2+\gamma^2\alpha^2+\alpha^2\beta^2$.

Solve the following :—

(α) $(x^2+2x+1)^2+3x^2+6x=105$;

(β) $x^2-xy+y^2+x+y=26$, $x^3+y^3=133$.

6. Express any complete number in the form $\rho(\cos\alpha+i\sin\alpha)$ where ρ and α are real and positive. Express in this form

$$\frac{\cos\theta+i\sin\theta}{\cos\phi+i\sin\phi} \text{ and } \frac{\cos 2\theta+i\sin 2\theta}{(\cos\theta+i\sin\theta)^3}.$$

7. Show how to sum any series whose n^{th} term is an integral function of n.

Find and sum to n terms the series which has the property that each term is twice the sum of all the preceding terms.

Sum $(2\cdot1^2+1^2)+(2\cdot2^2+1^4)+\ \ldots\ (2n^2+1^{2n})$;

also $1/1\cdot3+1/3\cdot5+1/5\cdot7+\ \ldots$ to n terms.

8. Find a formula for the accumulated value of an annuity of £A which has been unpaid for n years, the last instalment of which was due m years ago.

A man leaves his freehold estate to one son for x years with reversion thereafter to a second son : find the value of x in order that the inheritance of the two sons may be of equal value. Compound interest to be reckoned payable annually at the rate of 3%.

Given log 2 = ·3010300, log 103 = 2·0128372.

Or, as an alternative,

Establish the rule for expanding $(a_0+a_1x+a_2x^2+\ \ldots\ +a_rx^r)^n$ in powers of x, n being a positive integer.

Expand $\{(1-x)^{\frac{1}{3}}-(1+x+x^2)^{\frac{1}{3}}\}/(1-x)^{\frac{2}{3}}$ as far as x^2.

9. Given

Log sin 39°15′ = 9·8012015, Log cos 39°15′ = 9·8889612,

Log sin 39°16′ = 9·8013561, Log cos 39°16′ = 9·8888580,

calculate Log tan 39°15′32″.

Investigate a logarithmic formula for calculating directly the circumradius of a triangle in which two sides and the included angle are given.

10. If a, b, c, A, B, C be the sides and angles of a triangle, show that

$$\sin A-\sin B+\sin C=4\sin\tfrac{1}{2}A\cos\tfrac{1}{2}B\sin\tfrac{1}{2}C;$$
$$(a+b-c)\cot\tfrac{1}{2}B=(a+b+c)\tan\tfrac{1}{2}A.$$

Two men standing directly opposite to each other as close as possible to a gigantic horizontal tree stem can just see each other's eyes. If the heights of the eyes of the men be 5 ft. 3 in. and 5 ft. 9 in., find the diameter of the stem.

11. Find the condition that the straight line $x\cos\alpha+y\sin\alpha-p=0$, may touch the conic $x^2/a^2+y^2/b^2=1$.

If two tangents to the above conic be perpendicular, show that the sum of the squares of their distances from the centre is constant.

Or, as an alternative,

Prove that $L_{x=1}(x^m-1)/(x-1)=m$, where m is any commensurable real quantity.

Evaluate $L_{x=1}\{\sqrt{(1+x^2)}-\sqrt{(1-x^2)}\}/x\{\sqrt{(1+x)}-\sqrt{(1-x)}\}$, and

$L_{x=a}(\sin^2 x-\sin^2 a)/(x^2-a^2)$.

12. Find the equation to the tangent at any point of the parabola $y^2=ax$, and the co-ordinates of the foot of the perpendicular on it from the focus.

NATURAL PHILOSOPHY.

Thursday, 12th October 1893.—2.30 *to* 4.30 *o'clock.*

(*Eight questions, at most, to be answered.*)

1. Given the absolute motion of an observer, and the apparent motion of an object, show how to find its absolute motion.

To an observer on a ship a bird appears to fly at right angles to the ship's course. If the bird's actual speed is double the ship's, find the bird's real direction of motion.

2. State the proposition known as the Triangle of Forces.

ABCD is a quadrilateral, *G* the centre of the parallelogram formed by joining the middle points of the sides of the quadrilateral. Show that the resultant of forces represented by *OA*, *OB*, *OC*, *OD*, is 4 *OG*, *O* being any point in the plane.

3. Find the conditions of equilibrium of a rigid body in one plane.

A ladder of uniform material resting on a rough wall and floor makes an angle of 60° with the horizon. Find the coefficient of friction, supposed the same for wall and floor.

4. Two elastic spheres, each of mass 2 lbs., moving centrally towards one another with speeds 4 and 1 feet per second, collide. If the coefficient of restitution is $\frac{2}{3}$, find their subsequent speeds and the loss of kinetic energy.

5. Calculate the force required to keep a body moving uniformly in a circle.

An engine of 25 tons is running at 30 miles an hour on a curve of radius $\frac{1}{4}$ mile. What is the horizontal pressure on the rails if they are of the same height, and what is the effect of raising the outer rail?

6. State Hooke's Law.

A body rests on a rough inclined plane, and is attached by an elastic string to a point in the plane. Find the highest and lowest positions of equilibrium on the line of greatest slope through the point of attachment.

7. Distinguish between Potential and Kinetic Energy, and explain what is meant by Conservation of Energy. Exemplify by the case of a projectile in vacuo.

8. A tank partly filled with liquid, contains two equal masses of the same solid, one in the liquid, the other in the air. These are in equilibrium, when connected by a string, which passes from the lower mass under a pulley at the bottom of the tank, then over a pulley at the top, and is then fastened to the other mass. Find the relative density of the solid and liquid, neglecting that of the air.

9. Explain the (so-called) "retrograde" motion of a planet. What is the relative motion of the planet and the earth when the planet is at a "stationary" point?

10. Give the three statements known as Kepler's Laws; and point out the information which Newton extracted from them severally.

11. Analyse, generally, the nature of the tide-producing action of the Sun or Moon; and show how to determine their relative efficiencies.

12. Find the limit of fall of temperature, per foot of ascent, in still air, which is consistent with stable equilibrium.

Friday, 13th October 1893.—9 *to* 11 *o'clock.*

(*Eight questions, at most, to be answered.*)

1. Give the laws connecting the pressure, volume, and temperature of a gas; and prove that the compressibility of a gas at constant temperature is measured by the reciprocal of the pressure.

2. Give a general account of the Kinetic Theory of Gases, and, in particular, show how it explains Boyle's Law.

3. Define the Dew point, and describe one mode of finding it.

4. What do we understand by the principle of Reversibility in Thermodynamics? Prove that a more efficient engine than Carnot's Reversible Engine cannot exist.

5. Discuss the formation of images in a concave spherical mirror, distinguishing carefully between real and virtual images.

6. On September 22nd, when "day and night are equal," the sun appears to rise at 6 A.M., and to set at 6.12 P.M. Give a full explanation of this apparent contradiction.

7. What is meant by Interference in wave motion? Illustrate the principle by a detailed description of some one phenomenon, either in Sound or in Light.

8. Describe any experiment which proves that two different metals in contact are electrically at different potentials.

9. Describe the construction, and explain the use, of any one of the following instruments :—

(*a*) The Gold Leaf Electroscope,
(*b*) The Tangent Galvanometer,
(*c*) The Thermopile.

10. Contrast the behaviour, in strong magnetic fields, of a diamagnetic substance, such as bismuth, with that of a paramagnetic substance like iron.

11. What is the special characteristic of the (so-called) molecular forces? Show that it involves large internal pressure, as well as surface-tension, in any finite mass of liquid.

12. State, with full explanation of the terms employed, the law of gravitation ; without introducing the idea of force.

FOR NEIL-ARNOTT PRIZE.

The following Questions are to be answered in addition to four (at most) of the preceding.

I. Explain the action of a concave lens as a remedy for short-sightedness.

II. Give the laws of the flow of gases, and of liquids, through capillary tubes.

III. Describe the construction of the Induction Coil, and mention some of the uses to which it may be put.

IV. Give a general statement of the facts of the common form of colour blindness. Show how they can be accounted for, and how the existence of the defect can be most easily ascertained.

V. Compare the strengths of tubes and shells, of the same tensile substance and of the same form, but of different dimensions and of different thicknesses.

Friday, 6th April 1894—3 *to* 5 *o'clock.*

FIRST PAPER.

1. Define the Velocity and Acceleration of a point.

Two points move in equal circles in the same plane and with equal but opposite angular speeds round the centres of their respective circles; find the relative velocity of one with regard to the other.

2. A particle is moving in a path with acceleration directed towards a fixed point ; show that the angular velocity of the direction of the acceleration is inversely as the square of the length of the radius vector.

3. Show that any displacement (other than pure translation) of a plane figure in its own plane may be effected by a rotation about a definite point in the plane.

4. Prove that the path of a projectile under the sole action of gravity is a parabola, and show how to construct the parabola which, for given speed of projection, gives the maximum range along a given inclined plane passing through the point of projection.

5. A rectangular block rests, with one set of edges horizontal, on a rough plane which is gradually tilted to greater and greater angles. The coefficient of friction being 5/12, find the relation between the height and length of the block, so that it will begin to slip just as it topples over.

6. Distinguish among Momentum, Force, Impulse, Work, and point out the relations subsisting between them taken in pairs.

7. Show how the mass of a planet can be estimated from observation of the period and orbit of a satellite.

8. A cylindrical tumbler, 4 inches long, is inverted over the surface of mercury in a vessel and then gradually pushed down until the rim of the tumbler stands 10 inches below the mercury surface. How far has the mercury risen in the tumbler? Explain the double answer.

9. If the speed of a cricket-ball is changed from − 50 to + 250 foot-seconds in $0^{s}\cdot004$, what is the time-average of the force applied, in terms of the weight of the ball?

10. Define fluid Pressure; and prove that, at any point of a fluid at rest, it is the same in all directions.

11. Distinguish between ordinary and vortex motions of a fluid, and state the chief elementary properties of a vortex-filament in a perfect liquid.

12. State the conditions for equilibrium, and for stable equilibrium, of a floating solid.

For the Mackay Smith Scholarship the following Questions, along with any nine of the above, are to be taken.

13. Show how to find the pure part of a homogeneous strain; and show that two pure strains in succession do not, generally, produce a pure strain.

14. Calculate the surface-tension of water from the facts that it rises about 0·5 inch in a capillary tube of 0·1 inch bore, and that the mass of a cubic foot of water is 62·5 lbs.

15. Define Young's Modulus for an elastic solid, and find its value in terms of the Rigidity and the Resistance to Compression.

Saturday, 7th April 1894.—9 *to* 11 *o'clock.*

SECOND PAPER.

1. What is meant by the "grained" structure of the most homogeneous matter? What phenomena prove its existence, and what is (approximately) the limit of division at which it commences?

2. Why is the speed of sound in air greater than that calculated on the assumption that the temperature is constant? By what assumption must this be replaced to get the true value?

3. State Boyle's Law, and describe an apparatus by which it may be tested for pressures greater than an atmosphere. What more general law takes its place when variation of the temperature is considered?

Distinguish between a vapour and a gas.

4. Trace the successive effects of applying heat, at a uniform rate, say one unit per second, to 10 lbs. of ice at $-25°C$. At what intervals from the commencement of the experiment will the matter be homogeneous?

[No heat is supposed to escape by radiation or conduction.]

5. How do you know that white light is heterogeneous? Why does a piece of gold leaf seem green when one looks at a candle through it?

6. Why does a cloud of mean density greater than that of the air remain suspended? Mention any circumstances which may so affect the cloud as to cause it to rise.

7. State Carnot's chief contributions to Thermodynamics, and point out their more important immediate consequences.

8. In certain circumstances if two fluids are put in the same vessel and separated by a membrane, the total quantity on one side of the membrane increases. How do you explain this, and if the centre of mass of the whole is raised, how do you reconcile the phenomena with the Law of the Conservation of energy?

9. Explain the varying appearance of an object looked at through a spherical lens which is gradually moved from the object to the eye.

10. Explain the action of a Leyden Jar. Define its capacity and potential. How does the capacity depend on the thickness, and why may it not be increased indefinitely by altering the thickness?

11. Compare the currents sent through a given external resistance by a given number of equal cells when arranged in series, and in multiple arc, respectively.

12. State, generally, the various conditions required in order that there may be an eclipse of (*a*) the Sun, (*b*) the Moon. How can we determine the greatest, and the smallest, number of eclipses which can take place in one year? When the smallest number occurs, which of the bodies is eclipsed, and why?

For the Mackay Smith Scholarship, the following questions, in addition to any nine of the above, are to be taken.

13. State Faraday's and Joule's Laws of galvanic Currents; and show from them that, when a battery drives an electro-magnetic engine, the fraction of the chemical energy which is wasted in heat is the ratio of the currents when the machine is (1) working, (2) running but doing no work.

14. Define the specific inductive capacity of a dielectric, and point out how it influences the capacity of a Jar.

15. Give the explanation of the main phenomena of Halos and Parhelia.

CHEMISTRY.

See under FIRST PROFESSIONAL EXAMINATION FOR DEGREES IN MEDICINE.

ZOOLOGY.

See under FIRST PROFESSIONAL EXAMINATION FOR DEGREES IN MEDICINE.

BOTANY.

Monday, 26th March 1894.—1 *to* 3 *o'clock.*

(*Illustrate your Answers by Drawings.*)

1. Write an account of the life-history of *Puccinia.*
2. Trace the differentiation of the gametophyte in *Aspidium, Equisetum, Selaginella, Pinus.*
3. Give an account of the relationship of plants to temperature.
4. What are the chief mineral constituents of plant-food? Whence and how does the plant obtain them?
5. Describe the construction of a typical root. Point out the use of its several parts.

PRACTICAL BOTANY.

26th and 27th March 1894.—*Two hours.*

1. Make a series of sections illustrating the structure of specimen A. Mount and leave your preparations for inspection, sketching them sufficiently to allow of your giving a list of explanatory references.
2. Mark with flag-labels the phellogen and medullary sheath in specimen B.
3. Dissect specimen C. Lay out its parts, and name them.
4. Draw the flower-diagram of specimen D.
5. Mention the natural order of E, F, G, H, and I, giving your reasons in each case.
6. Identify and describe any five of the specimens in the vessels or on the table in front of you.
7. Determine by aid of the flora given you the genus and species of specimens K and L.

27th March.

A. Root of *Taxus baccata.*
B. Transverse section of stem of Oak.
C. Strawberry.
D. *Daphne mezereon.*
E. *Arabis.*
F. *Saxifraga media.*
G. *Cydonia japonica.*
H. *Edwardsia grandiflora.*
I. *Bellis perennis.*
K. *Senecio vulgaris.*
L. *Gagea lutea.*

DEPARTMENT OF HISTORY AND LAW.

HISTORY.

Saturday, 31st March 1894.—11.30 *to* 1.30 *o'clock.*

FIRST PAPER: *English History:* 450—1688.

(*Six questions* AT MOST *to be answered. Special value attached to No.* 12.)

1. Describe in outline the chief political institutions of the Anglo-Saxons.

2. Enumerate very briefly a few of the greatest landmarks of English domestic history between 1066 and 1215, and explain their significance.

3. What was the composition of the "First Perfect Parliament"? For what purpose was it summoned? Wherein lay its importance? What were its prototypes?

4. Sketch the career of Edward I.

5. State and explain what led to the Rebellion of the Villeins (1381). Describe the social state of England at that period.

6. The statute *de haeretico comburendo* (1401) is the "high-water mark of the encroachment of Church on State." Explain. State also shortly the nature of the conflicts between Church and State during the preceding three centuries.

7. Sketch *either* (*a*) the Hundred Years' War, *or* (*b*) the Wars of the Roses, with their respective causes and effects, omitting military details.

8. Review and discuss the respective missions of the Lancastrians, the Yorkists, and the Tudors.

9. Describe in general outline the place in History of Henry VIII., Wolsey, and Thomas Cromwell.

10. Trace and explain the political duel between Queens Elizabeth and Mary.

11. State concisely the main principles at stake during the political history of the Stuart Dynasty.

12. Translate and explain three of the following passages:—

(*a*)

Fait orent devant els escuz
De fenestres e d'altres fuz,
Devant els les orent levez,
Comme cleies joinz e serrez.

(*b*) Nullum scutagium vel auxilium ponatur . . . nisi per commune consilium. . . . Nullus liber homo capiatur vel imprisonetur . . . nisi per legale judicium parium suorum vel per legem terrae.

(*c*) Laborers that have no lond · to liven on Bote heore honden,
Deyne not to dyne a day · niht-olde wortes.
Mai no peny Ale hem paye · no no pece of Bacun,
Bote hit weore Fresch Flesch · or elles Fisch I-Friyet,
Bothe chaud and pluschaud · for chele of heore Mawe.

(*d*) Il Cardinale Eboracense, . . . veramente essempio a nostri dì di immoderata superbia, benchè nato di infima conditione e di sangue sordidissimo, era salito appresso quel Re in tanta autorità, che era manifestissimo a ciascuno, che la uolontà del Re senza l' approuatione di Eboracense fusse di niuno momento, e per contrario fusse ualidissimo tutto quello che Eboracense solo deliberasse.

(*e*) La Reyna maldice à todos los que le habláron en el arresto del dinero, diciendo que queria que antes los hubiera llevado el Diablo, porque vee bien que estas cosas la podrian hacer caer en una guerra.

(*f*) L'on dict que la dicte dame se monstra fort constante. Elle pria Dieu en Latin avec ses femmes, n'ayant voulu permettre que ung évesque anglois, là présent, aprochast d'elle, protestant que elle estoyt catholique et que elle vouloyt mourir en ceste religion.

Saturday, 31*st March* 1894.—2.30 *to* 4.30 *o'clock.*

SECOND PAPER: (*a*) *British Empire* 1688—1832;
(*b*) *Fortescue's Governance.*

A

(*Four Questions at most to be answered.*)

1. State and discuss the chief points in the Revolution Settlement (1689 and 1701).

2. Describe in outline the risings of 1715 and 1745, and discuss their political bearings.

3. Sketch the career and policy of Sir Robert Walpole (1721-42).

4. Trace and explain the rise of Cabinet Government under George I. and George II.

5. Give an outline of Pitt's foreign policy from 1758 to 1761.

6. State the various constitutional points of interest raised during Wilkes's career (1763-82).

7. Enumerate and discuss the causes of the American Rebellion (1764-75).

8. Contrast generally the personal government of George III., down to 1783, with the ministries of William Pitt from 1783 to 1806.

9. "The French Revolution frightened Great Britain back into Conservatism." Explain and substantiate.

10. Sketch and discuss the history of *one* of the following topics :— (*a*) Religious Emancipation (1828-29) ; (*b*) Parliamentary Reform (1832).

B

(*Two Questions at most to be answered.*)

1. Sketch the public and the literary career of Sir John Fortescue, state briefly his political views, and explain the importance of his chief works.

2. Give a short history of the period in which Fortescue lived, dwelling chiefly on the political situation.

3. Modernise, and explain the points of interest involved in *three* of the following passages :—

(*a*) Ther bith ij kyndes off kyngdomes, of the wich that on is a lordship callid in laten *dominium regale*, and that other is callid *dominium politicum et regale*. And thai diuersen in that the first kynge mey rule his peple bi such lawes as he makyth hym self. . . . He may sett vppon thaim tayles, such as he wol hym self. . . . The secounde kynge may not rule his peple bi other lawes than such as thai assenten unto.

(*b*) And how so be it that the frenche kynge reignith vppon is peple *dominio regali*, yet Seynt Lowes some time kynge ther, nor eny of his progenitors sette neuer tayles or other imposicion vppon the peple of that lande with owt the assent of the iij estates, wich whan thai bith assembled bith like to the courte of the parlement of Ingelonde.

(*c*) It is necessary that the kynge haue grete possescions and peculier livelod ffor his own suirte ; namely, whan any of his lordis shull happen to be so excessyuely grete, as ther mought therby groue perell to his estate. For certanly ther mey no grettir perell growe to a prince, than to haue a subgett equepolent to hym selff.

(*d*) Wherfore me thinkith, that yff the kynge might haue is livelod ffor the sustenance off his estate in grete lordshippes, maneres, ffee ffermys, and such other demaynes, his people not charged, he shulde kepe to hym hollych thair hertes, excede in lordshippes all the lordes off his reaume, and ther shulde non of hem growe to be like unto hym, wich thynge is most to be fered off all the worlde.

(*e*) Wich materes thrugly considered, it semyth verely good, that no man haue any office of the kynge's yefte, but he be ffirst sworne that he is seruant to non other man, or woll serue any other man, or take is clothynge or ffee while he seruyth the kyng. . . . And triewly it were goode that of al the kynge's giftes his patentis maden mencioun that they were passed *de auisamento consilii sui*, and namely for a yeere or ij.

ART AND ARCHÆOLOGY.

Friday, 30th March 1894—2.30 *to* 4.30 *o'clock.*

FIRST PAPER—HISTORICAL.

(*Not more than Seven Questions to be attempted. The words "briefly" or "a brief account" mean that not more than one side of foolscap is to be covered.*)

1. Give some account of the Art of the Cave-dwellers in the Dordogne (La Madeleine, &c.), and describe briefly what is known of the conditions of life of the people by whom it was produced.

2. Describe, and roughly draw the plan of, a typical Egyptian temple, and mention any facts you know about the orientation of Egyptian temples.

3. Give a brief account of the earliest School of Art whose monuments have been found in Chaldæa.

Or,

Describe the decoration, external or internal, of some particular Assyrian palace.

4. Describe the stages by which Jerusalem grew from a Jebusite fort to the city of the days of King Solomon.

5. Write briefly about the style of Athenian Art in the century preceding the Persian invasion, as disclosed by the excavation of the Akropolis.

6. Give a list of the principal Greek Sculptors, with the places where they worked, between B.C. 350 and B.C. 200.

7. Trace the architectural history of the types of buildings erected for Christian worship up to about the eighth century.

8. Describe and criticise the mosaic decoration of any one of the following:—(*a*) The Baptistry, (*b*) The Tomb of Galla Placidia, (*c*) S. Apollinare Nuovo, at Ravenna.

9. Specify the different styles of MS. Illumination practised in Great Britain during the Mediæval period.

10. Give some notes upon the political, social, and other changes that heralded the rise of Gothic architecture in France.

11. Write a short life of one of the following:—Giotto, Fra Angelico, Signorelli, Giovanni Bellini, Mantegna, Raphael.

12. Compare Florence and Venice as centres for the practice of the Arts, and account in your answer for the difference in the character of painting at the two cities.

13. Give a list, with dates, and a few words of characterisation, of the leading painters of the Umbrian School.

Saturday, 31*st March* 1894.—9 *to* 11 *o'clock.*

SECOND PAPER—CRITICAL AND TECHNICAL.

(*Not more than Seven Questions to be attempted. The words "briefly" or "a brief account" mean that not more than one side of foolscap is to be covered.*)

1. Mention a few qualities belonging to all good works of the formative Arts.

2. Write, briefly, on the influence of material on design, and refer to illustrative examples.

3. Describe your favourite picture among those discussed in the lectures or visits to galleries, and give reasons for your preference.

4. What do Dutch paintings, and those of the modern schools generally, give us in exchange for the interest of subject that marks the work of the Italians?

5. Write a critical notice of the style of Praxiteles, especially in its contrast with that of Pheidias.

6. Describe the principal building materials used by the Romans, with the characteristic excellence of each.

7. Give an account, from Theophilus, of the surroundings and methods of the Mediæval metal-worker, and show how these help to explain the merit of his productions.

8. Describe briefly the technical process of one of the following:—(*a*) Fresco painting; (*b*) Bronze casting in *cire perdue*; (*c*) Cloisonné enamel work.

9. Discriminate between the styles of relief treatment illustrated—(*a*) in the works of the fine Greek period; (*b*) in the Hellenistic reliefs and classical sarcophagi; (*c*) in Ghiberti's Old Testament Gates.

10. What are the characteristics of the earliest stained-glass windows, and how do style and technique alter in the 14th century? Illustrate your answer by a reference of contemporary mural paintings.

11. Distinguish, in painting, between the fresco style, the tempera style, and the style of the great masters in oil of the 17th century.

12. What is the position of Rembrandt as an epoch-making figure in the history of the graphic art?

EXAMINATION PAPERS FOR DEGREE OF M.A. WITH HONOURS.

A.—CLASSICS.

LATIN.

Wednesday, 4th April 1894.—2.30 *to* 5.30 *o'clock.*

Translate, with short notes where necessary :—

1. TR. Alexandrum magnum atque Agathoclem aiunt maxumas
duo res gessisse : quid mihi fiet tertio,
qui solus facio facinora immortalia ?
uehit hic clitellas, uehit hic autem alter senex.
nouicium mihi quaestum institui non malum :
nam muliones mulos clitellarios
habent, ego homines habeo clitellarios.
magni sunt oneris : quicquid inponas, uehunt.
nunc hunc hauscio an conloquar : congredi*bor*.
heus Theopropides.
TH. hem, *nam* quis hic nominat me ?
TR. ero seruos multimodis suo fidus.
TH. unde is ?
TR. quod me miseras, adfero omne inpetratum.
TH. quid illi, opsecro, tam diu destitisti ?
TR. seni non erat otium : id sum opperitus.
TH. antiquom optines hoc tuom, tardus ut sis.
TR. heus tu, si uoles uerbum *unum* hoc cogitare :
simul flare sorbereque haud factu facilest :
ego hic esse et illi simitu haud pot*e fui*.

2. Fas pervicaces est mihi Thyiadas,
Vinique fontem, lactis et uberes
Cantare rivos, atque truncis
Lapsa cavis iterare mella :
Fas et beatae coniugis additum
Stellis honorem, tectaque Pentheï
Disiecta non leni ruina,
Thracis et exitium Lycurgi.
Tu flectis amnes, tu mare barbarum :
Tu, separatis, uvidus, in iugis,
Nodo coërces viperino
Bistonidum sine fraude crines.
Tu, cum parentis regna per arduum
Cohors gigantum scanderet impia,
Rhoetum retorsisti leonis
Unguibus horribilique mala.

Explain the allusions.

3. (*a*) Qualis et unde genus, qui sint mihi, Tulle, Penates.
Quaeris pro nostra semper amicitia.
Si Perusina tibi patriae sunt nota sepulcra,
Italiae duris funera temporibus,
Cum Romana suos egit discordia cives
(Sit mihi praecique, pulvis Etrusca, dolor,
Tu proiecta mei perpessa es membra propinqui,
Tu nullo miseri contegis ossa solo),
Proxima supposito contingens Vmbria campo
Me genuit terris fertilis uberibus.

(*b*) In Veneris tabula summam sibi ponit Apelles ;
Parrhasius parva vindicat arte locum ;
Argumenta magis sunt Mentoris addita formae ;
At Myos exiguum flectit acanthus iter ;
Phidiacus signo se Iuppiter ornat eburno ;
Praxitelem propria vindicat urbe lapis.
Est quibus Eleae concurrit palma quadrigae ;
Est quibus in celeres gloria nata pedes.

(*c*) Quid genus aut virtus aut optima profuit illi
Mater et amplexum Caesaris esse focos ?
Aut modo tam pleno fluitantia vela theatro
Et per maternas omnia gesta manus.
Occidit, et misero steterat vigesimus annus :
Tot bona tam parvo clausit in orbe dies.

4. Ipse capillato diffusum consule potat
Calcatamque tenet bellis socialibus uvam,
Cardiaco numquam cyathum missurus amico ;
Cras bibet Albanis aliquid de montibus aut de
Setinis, cuius patriam titulumque senectus
Delevit multa veteris fuligine testae,
Quale coronati Thrasea Helvidiusque bibebant
Brutorum et Cassi natalibus. Ipse capaces
Heliadum crustas et inaequales beryllo
Virro tenet phialas : tibi non committitur aurum ;
Vel, si quando datur, custos affixus ibidem,
Qui numeret gemmas, ungues observet acutos.

5. Ambigua sunt in primis acuta atque in verbo posita, non in re ; sed non saepe magnum risum movent ; magis ut belle et litterate dicta laudantur ; ut in illum Titium, qui cum studiose pila luderet et idem signa sacra noctu frangere putaretur gregalesque eum, cum in campum non venisset, requirerent, excusavit Vespa Terentius, quod eum brachium fregisse diceret ; ut illud Africani, quod est apud Lucilium :

Quid ? Decius, Nuculam an confixum vis facere ? inquit.

Ut tuus amicus, Crasse, Granius, 'non esse sextantis.' Et, si quaeritis, is, qui appellatur dicax, hoc genere maxime excellet ; sed risus movent alia maiores. Ambiguum per se ipsum probatur id quidem,

ut ante dixi, vel maxime; ingeniosi enim videtur vim verbi in aliud, atque ceteri accipiant, posse ducere; sed admirationem magis quam risum movet, nisi si quando incidit in aliud genus ridiculi.

Quae genera percurram equidem. Sed scitis esse notissimum ridiculi genus, cum aliud exspectamus, aliud dicitur. Hic nobismet ipsis noster error risum movet. Quodsi admixtum est etiam ambiguum, fit salsius; ut apud Novium videtur esse misericors ille, qui iudicatum duci videns percontatur ita: Quanti addictus? Mille nummis. Si addidisset tantummodo: Ducas licet; esset illud genus ridiculi praeter exspectationem; sed quia addidit: Nihil addo, ducas licet: addito ambiguo, fuit, ut mihi quidem videtur, salsissimus.

6. Accedebat sententiae Paulini Marius Celsus; idem placere Annio Gallo, paucos ante dies lapsu equi adflicto, missi qui consilium eius sciscitarentur rettulerant. Otho pronus ad decertandum; frater eius Titianus et praefectus praetorii Proculus, imperitia properantes, fortunam et deos et numen Othonis adesse consiliis, adfore conatibus testabantur; neu quis obviam ire sententiae auderet, in adulationem concesserant. Postquam pugnari placitum, interesse pugnae imperatorem an seponi melius foret dubitavere. Paulino et Celso iam non adversantibus, ne principem obiectare periculis viderentur, idem illi deterioris consilii auctores perpulere ut Brixellum concederet ac dubiis proeliorum exemptus summam rerum et imperii, se ipsum, reservaret. Is primus dies Othonianas partes adflixit; namque et cum ipso praetorianarum cohortium et speculatorum equitumque valida manus discessit, et remanentium fractus animus, quando suspecti duces et Otho, cui uni apud militem fides, dum et ipse non nisi militibus credit, imperia ducum *in* incerto reliquerat.

Thursday, 5*th April* 1894.—9 *to* 12 *o'clock.*

I. For Latin Prose:—

It is seldom or never found, when a false taste in poetry or eloquence prevails among any people, that it has been preferred to a true, upon comparison and reflection. It commonly prevails merely from ignorance of the true, and from the want of perfect models to lead men into a juster apprehension and more refined relish of those productions of genius. When *these* appear, they soon unite all suffrages in their favour, and by their natural and powerful charms gain over even the most prejudiced to the love and admiration of them. The principle of every passion and of every sentiment is in every man; and, when touched properly, they rise to life, and warm the heart, and convey that satisfaction by which a work of genius is distinguished from the adulterate beauties of a capricious wit and fancy. And if this observation be true with regard to all the liberal arts, it must be peculiarly so with regard to eloquence; which, being merely calculated for the public and for men of the world, cannot with any pretence of reason appeal from the people to more refined judges, but must submit to the public

verdict without reserve or limitation. Whoever, upon comparison, is deemed by a common audience the greatest orator, ought most certainly to be pronounced such by men of science and erudition.—HUME.

II. Translate :—

1. Quintilio si quid recitares, "Corrige, sodes,
Hoc," aiebat, "et hoc." Melius te posse negares,
Bis terque expertum frustra ; delere jubebat,
Et male tornatos incudi reddere versus.
Si defendere delictum, quam vertere, malles,
Nullum ultra verbum aut operam insumebat inanem,
Quin sine rivali teque et tua solus amares.
Vir bonus et prudens versus reprendet inertes,
Culpabit duros, incomtis allinet atrum
Transverso calamo signum, ambitiosa recidet
Ornamenta, parum claris lucem dare coget,
Arguet ambigue dictum, mutanda notabit,
Fiet Aristarchus ; non dicet, "Cur ego amicum
Offendam in nugis?"

2. Atque hoc carmen hic tribunus plebis non vobis, sed sibi intus canit. Habet socerum, virum optimum, qui tantum agri in illis rei publicae tenebris occupavit, quantum concupivit. Huic subvenire vult succumbenti iam et oppresso, Sullanis oneribus gravi, sua lege ut liceat illi invidiam deponere, pecuniam condere. Et vos non dubitatis quin vectigalia vestra vendatis, plurimo maiorum vestrorum sanguine et sudore quaesita, ut Sullanos possessores divitiis augeatis, periculo liberetis? nam ad hanc emptionem decemviralem duo genera agrorum spectant, Quirites. Eorum unum propter invidiam domini fugiunt, alterum propter vastitatem. Sullanus ager a certis hominibus latissime continuatus tantam habet invidiam, ut veri ac fortis tribuni plebis stridorem unum perferre non possit. Hic ager omnis, quoquo pretio coëmptus erit, tamen ingenti pecunia vobis inducetur. Alterum genus agrorum propter sterilitatem incultum, propter pestilentiam vastum atque desertum emetur ab iis, qui eos vident sibi esse, si non vendiderint, relinquendos. Et nimirum id est, quod ab hoc tribuno plebis dictum est in senatu, urbanam plebem nimium in re publica posse : exhauriendam esse. Vos vero, Quirites, si me audire vultis, retinete istam possessionem gratiae, libertatis, fori, ludorum, ceterorum omnium commodorum: nisi forte mavultis relictis his rebus atque hac luce rei publicae in Sipontina siccitate aut in Salpinorum pestilentiae finibus Rullo duce collocari.

Thursday, 5th April 1894.—2 *to* 5 *o'clock.*

1. Translate and comment on the following :—

(*a*) Etenim C. Mancinum, nobilissimum atque optimum virum atque consularem, cum eum propter invidiam Numantini foederis paterpatratus ex S. C. Numantinis dedidisset, eumque illi non recepissent, posteaque Mancinus domum revenisset, neque in senatum introire dubitasset,

P. Rutilius, M. filius, tribunus plebis de senatu iussit educi, quod eum civem negaret esse ; quia memoria sic esset proditum, quem pater suus aut populus vendidisset, ei nullum esse postliminium.

(*b*) Nec quisquam est eorum qui, si iam sit ediscendum sibi aliquid, non Teucrum Pacuvii malit quam Manilianas venalium vendendorum leges ediscere.

(*c*) Quarta pars manipuli sparsa per commeatus aut in ipsis castris vaga, dum mercedem centurioni exsolveret, neque modum oneris quisquam neque genus quaestus pensi habebat : per latrocinia et raptus aut servilibus ministeriis militare otium redimebant.

(*d*) Dum hac totius orbis nutatione fortuna imperii transiit, Primus Antonius nequaquam pari innocentia post Cremonam agebat, satisfactum bello ratus et cetera ex facili, seu felicitas in tali ingenio avaritiam superbiam ceteraque occulta mala patefecit.

Give a very short account of the proceedings of Antonius Primus from the proclamaton of Vespasian to the time here mentioned.

(*e*) Ubi ad Helvidium Priscum praetorem designatum ventum, prompsit sententiam †ut honorificam in novum principem,† falsa aberant, et studiis senatus attollebatur. Isque praecipuus illi dies magnae offensae initium et magnae gloriae fuit.

Discuss and, if you think necessary, emend the words obelised.

(*f*) Daemones. Veneri haec autem complacuerunt. Labrax. Habeat si argentum dabit.
Dae. Dei tibi argentum? nunc adeo, ut scias meam sententiam,
Occupito modo illis adferre vim ioculo pauxillulum :
Ita ego te hinc ornatum amittam, ut tu ipsus te non noveris.
Vos adeo, ubi ego innuero vobis, ni ei caput exoculassitis,
Quasi iuncis murteta item ego vos virgis circumvinciam.

(*g*) Credo alium in aliam beluam hominem vortier :
Illic in columbum, credo, leno vortitur :
Nam in columbari collum hau multo post erit.
In nervom ille hodie nidamenta congeret.

(*h*) Sed primum quicquid acquai
Tollitur, in summaque fit ut nil umor abundet,
Partim quod validi verrentes aequora venti
Diminuunt radiisque retexens aetherius sol,
Partim quod supter per terras diditur omnis :
Percolatur enim virus, retroque remanat
Materies umoris et ad caput amnibus omnis
Convenit, inde super terras fluit agmine dulci
Qua via secta semel liquido pede detulit undas.

(*i*) Olli discurrere pares, atque agmina terni
Diductis solvere choris, rursusque vocati
Convertere vias infestaque tela tulere.
Inde alios ineunt cursus aliosque recursus
Adversis spatiis, alternisque orbibus orbes
Impediunt, pugnaeque cient simulacra sub armis.

(*k*) Ceu quondam nivei liquida inter nubila cycni,
Cum sese e pastu referunt et longa canoros
Dant per colla modos . . .
Nec quisquam aeratas acies ex agmine tanto
Misceri putet : aëriam sed gurgite ab alto
Urgueri volucrum raucarum ad litora nubem.

(*l*) Interea gustus elementa per omnia quaerunt,
Nunquam animo pretiis obstantibus ; interius si
Attendas, magis illa iuvant, quae pluris emuntur.
Ergo haud difficile est perituram arcessere summam,
Lancibus oppositis vel matris imagine fracta,
Et quadringentis nummis condire gulosum
Fictile : sic veniunt ad miscellanea ludi.

2. Answer any *three* of the following questions :—

(*a*) Point out shortly the elements of originality in Roman comedy as exemplified by Plautus.

(*b*) Explain historically the way in which the theory of physics expounded by Lucretius took shape. Mention any special points in which it anticipates modern scientific discoveries.

(*c*) What rival schools of oratory did Hortensius and Cicero represent? To what Attic orator or orators is Cicero most nearly comparable?

(*d*) Give some account of the literary circle that surrounded Maecenas and of the chief works which they produced.

(*e*) Narrate what is known of the life and career of Juvenal, and especially of his relations with his literary contemporaries.

3. Answer any *two* of the following :—

(*a*) Give some account of the origin of the Comitia Tributa, and its growth in importance down to the times of the Gracchi.

(*b*) Sketch the history of agrarian legislation at Rome, down to 111 B.C. What change was brought about in that year in the conditions of the agrarian question?

(*c*) Discuss Rome's relations with the Etruscans before the establishment of the republic. Mention some of the principal steps by which she afterwards extended her power over Etruria.

(*d*) Show why the republican constitution proved unequal to the administration of the Roman Empire, and how the difficulty was met by Augustus.

GREEK.

Saturday, 7th April 1894.—9 *to* 12 *o'clock.*

1. For Greek Prose :—

Among excellent and illustrious men, they are most praiseworthy, who have been the authors and originators of religion and divine worship; next are they who have laid the foundation of any kingdom or commonwealth ; then follow those who, having the command of great

armies, have enlarged their own kingdom or the dominion of their country. To these must be added literary men of all kinds, according to their several degrees; and lastly, as being infinitely the greater number, come the artificers and mechanics, all to be commended according as they are ingenious or skilful in their several trades. On the other hand, they are infamous and detestable, who are despisers of religion, subverters of governments, enemies of virtue, learning, and art, and, in short, of everything that is useful and honourable to mankind; and amongst these must be included the profane, seditious, ignorant, debauched, and vile. And though nature has so ordered it that there is neither wise man nor fool, neither good man nor bad, who, if he were asked which of these two kinds of people he would choose, would not prefer the one which deserved to be preferred, and condemn the other; yet the generality of mankind, deluded by a false impression of good and a vain notion of glory, leaving ways which are excellent and commendable, either wilfully or ignorantly wander into paths which lead them to dishonour; and whereas, to their immortal honour, they might establish a commonwealth or kingdom, they run headlong into tyranny.—MACHIAVELLI.

UNSEEN PASSAGE.

2. Translate into English:—

ΘΗ. ἄλις λόγων· ὡς οἱ μὲν ἐξηρπασμένοι
σπεύδουσιν, ἡμεῖς δ' οἱ παθόντες ἔσταμεν.
ΚΡ. τί δῆτ' ἀμαυρῷ φωτὶ προστάσσεις ποιεῖν;
ΘΗ. ὁδοῦ κατάρχειν τῆς ἐκεῖ, πομπὸν δ' ἐμὲ
χωρεῖν, ἵν', εἰ μὲν ἐν τόποισι τοῖσδ' ἔχεις
τὰς παῖδας ἡμῖν, αὐτὸς ἐκδείξῃς ἐμοί·
εἰ δ' ἐγκρατεῖς φεύγουσιν, οὐδὲν δεῖ πονεῖν·
ἄλλοι γὰρ οἱ σπεύδοντες, οὓς οὐ μή ποτε
χώρας φυγόντες τῆσδ' ἐπεύξωνται θεοῖς.
ἀλλ' ἐξυφηγοῦ· γνῶθι δ' ὡς ἔχων ἔχει
καί σ' εἶλε θηρῶνθ' ἡ τύχη· τὰ γὰρ δόλῳ
τῷ μὴ δικαίῳ κτήματ' οὐχὶ σώζεται.
κοὐκ ἄλλον ἕξεις ἐς τάδ'· ὡς ἔξοιδά σε
οὐ ψιλὸν οὐδ' ἄσκευον ἐς τοσήνδ' ὕβριν
ἥκοντα τόλμης τῆς παρεστώσης τανῦν,
ἀλλ' ἔσθ' ὅτῳ σὺ πιστὸς ὢν ἔδρας τάδε.
ἃ δεῖ μ' ἀθρῆσαι, μηδὲ τήνδε τὴν πόλιν
ἑνὸς ποιῆσαι φωτὸς ἀσθενεστέραν.
νοεῖς τι τούτων, ἢ μάτην τὰ νῦν τέ σοι
δοκεῖ λελέχθαι χὥτε ταὐτ' ἐμηχανῶ;
ΚΡ. οὐδὲν σὺ μεμπτὸν ἐνθάδ' ὢν ἐρεῖς ἐμοί·
οἵκοι δὲ χἡμεῖς εἰσόμεσθ' ἃ χρὴ ποιεῖν.

SOPH. *Oed. Col.* 1016-1037.

Emend ἐξηρπασμένοι.

Saturday, 7th April 1894.—1 *to* 4 *o'clock.*

I. Translate, with very short notes where necessary :—

(1) "ὦ γύναι, οὐ γὰρ οἴω ἐϋκνήμιδας Ἀχαιοὺς
ἐκ Τροίης εὖ πάντας ἀπήμονας ἀπονέεσθαι·
καὶ γὰρ Τρῶάς φασι μαχητὰς ἔμμεναι ἄνδρας,
ἠμὲν ἀκοντιστὰς ἠδὲ ῥυτῆρας ὀϊστῶν
ἵππων τ' ὠκυπόδων ἐπιβήτορας, οἵ κε τάχιστα
ἔκριναν μέγα νεῖκος ὁμοιΐου πολέμοιο.
τῷ οὐκ οἶδ' εἴ κέν μ' ἀνέσει θεὸς, ἤ κεν ἀλώω
αὐτοῦ ἐνὶ Τροίῃ· σοὶ δ' ἐνθάδε πάντα μελόντων.
μεμνῆσθαι πατρὸς καὶ μητέρος ἐν μεγάροισιν
ὡς νῦν, ἢ ἔτι μᾶλλον ἐμεῦ ἀπονόσφιν ἐόντος·
αὐτὰρ ἐπὴν δὴ παῖδα γενειήσαντα ἴδηαι,
γήμασθ' ᾧ κ' ἐθέλῃσθα, τεὸν κατὰ δῶμα λιποῦσα."
κεῖνος τὼς ἀγόρευε· τὰ δὴ νῦν πάντα τελεῖται.
νὺξ δ' ἔσται ὅτε δὴ στυγερὸς γάμος ἀντιβολήσει
οὐλομένης ἐμέθεν, τῆς τε Ζεὺς ὄλβον ἀπηύρα.
ἀλλὰ τόδ' αἰνὸν ἄχος κραδίῃν καὶ θυμὸν ἱκάνει·
μνηστήρων οὐχ ἥδε δίκη τὸ πάροιθε τέτυκτο·
οἵτ' ἀγαθήν τε γυναῖκα καὶ ἀφνειοῖο θύγατρα
μνηστεύειν ἐθέλωσι καὶ ἀλλήλοις ἐρίσωσιν,
αὐτοὶ τοίγ' ἀπάγουσι βόας καὶ ἴφια μῆλα,
κούρῃς δαῖτα φίλοισι, καὶ ἀγλαὰ δῶρα διδοῦσιν·
ἀλλ' οὐκ ἀλλότριον βίοτον νήποινον ἔδουσιν.

Write grammatical notes on *οἵ κε τάχιστα ἔκριναν, ἀνέσει, ἀλώω, τὸ πάροιθε, ἐθέλωσι.*

(2) ὦ πόποι, ἦ μεγάλας ἀγαθᾶς τε πο-
λισσονόμου βιοτᾶς ἐπεκύρσαμεν,
εὖθ' ὁ γηραιὸς
πανταρκὴς, ἀκάκας, ἄμαχος βασιλεὺς
ἰσόθεος Δαρεῖος ἄρχε χώρας.
πρῶτα μὲν εὐδοκίμου στρατιᾶς ἀπε-
φαινόμεθ', ἠδὲ νομίσματα πύργινα
πάντ' ἐπεύθυνον.
νόστοι δ' ἐκ πολέμων ἀπόνους, ἀπαθεῖς,
. . . εὖ πράσσοντας, ἄγον οἴκους.
ὅσσας δ' εἶλε πόλεις πόρον οὐ διαβὰς Ἅλυος ποταμοῖο,
οὐδ' ἀφ' ἑστίας συθείς,
οἷαι Στρυμονίου πελάγους Ἀχελωΐδες εἰσὶ πάροικοι
Θρῃκίων ἐπαύλων,
λίμνας τ' ἄκτοθεν, αἳ κατὰ χέρσον ἐληλαμέναι περὶ πύργον
τοῦδ' ἄνακτος ἄϊον,
Ἕλλας τ' ἀμφὶ πόρον πλατὺν εὐχόμεναι, μυχία τε Προποντὶς
καὶ στόμωμα Πόντου.

Explain the geographical references.

(3) *πότμος δὲ κρίνει συγγενὴς ἔργων περὶ*
πάντων. τὸ δ' Αἰγίνᾳ θεοῦ, Εὐθύμενες,
Νίκας ἐν ἀγκώνεσσι πιτνὼν ποικίλων ἔψαυσας ὕμνων.
'Αντ. γ'.
ἦτοι μεταΐξαντα καὶ νῦν τεὸς μάτρως ἀγάλλει κείνου ὁμόσπορον ἔθνος, Πυθέα.
ἀ Νεμέα μὲν ἄραρεν μείς τ' ἐπιχώριος, ὃν φίλης' 'Απόλλων·
ἄλικας δ' ἐλθόντας οἶκοι τ' ἐκράτει
Νίσου τ' ἐν εὐαγκεῖ λόφῳ. χαίρω δ', ὅτι
ἑσλοῖσι μάρναται πέρι πᾶσα πόλις.
ἴσθι, γλυκεῖάν τοι Μενάνδρου σὺν τύχᾳ μόχθων ἀμοιβὰν
'Επ. γ'.
ἐπαύρεο. χρὴ δ' ἀπ' 'Αθανᾶν τέκτον' ἀθληταῖσιν ἔμμεν.
εἰ δὲ Θεμίστιον ἵκεις, ὥστ' ἀείδειν, μηκέτι ῥίγει· δίδοι
φωνάν, ἀνὰ δ' ἱστία τεῖνον πρὸς ζυγὸν καρχασίου,
πύκταν τέ νιν καὶ παγκρατίου φθέγξαι ἐλεῖν 'Επιδαύρῳ διπλόαν
νικῶντ' ἀρετάν, προθύροισιν δ' Αἰακοῦ
ἀνθέων ποιᾶντα φέρειν στεφανώματα σὺν ξανθαῖς Χάρισσιν.

(4) Εἶεν δή, ἦ δ' ὃς ὁ Σωκράτης, τὰ μὲν 'Αρμονίας ἡμῖν τῆς Θηβαϊκῆς ἴλεά πως, ὡς ἔοικε, μετρίως γέγονε· τί δὲ δὴ τὰ Κάδμου, ἔφη, ὦ Κέβης, πῶς ἱλασόμεθα καὶ τίνι λόγῳ; Σύ μοι δοκεῖς, ἔφη ὁ Κέβης, ἐξευρήσειν· τουτονὶ γοῦν τὸν λόγον τὸν πρὸς τὴν ἁρμονίαν θαυμαστῶς μοι εἶπες ὡς παρὰ δόξαν. Σιμμίου γὰρ λέγοντος, ὅτε ἠπόρει, πάνυ ἐθαύμαζον, εἴ τι ἔξει τις χρήσασθαι τῷ λόγῳ αὐτοῦ· πάνυ μὲν οὖν μοι ἀτόπως ἔδοξεν εὐθὺς τὴν πρώτην ἔφοδον οὐ δέξασθαι τοῦ σοῦ λόγου. ταὐτὰ δὴ οὐκ ἂν θαυμάσαιμι καὶ τὸν τοῦ Κάδμου λόγον εἰ πάθοι. 'Ω 'γαθέ, ἔφη ὁ Σωκράτης, μὴ μέγα λέγε, μὴ τις ἡμῶν βασκανία περιτρέψῃ τὸν λόγον τὸν μέλλοντα λέγεσθαι, ἀλλὰ δὴ ταῦτα μὲν τῷ θεῷ μελήσει, ἡμεῖς δὲ 'Ομηρικῶς ἐγγὺς ἰόντες πειρώμεθα εἰ ἄρα τι λέγεις. ἔστι δὲ δὴ τὸ κεφάλαιον ὧν ζητεῖς· ἀξιοῖς ἐπιδειχθῆναι ἡμῶν τὴν ψυχὴν ἀνώλεθρόν τε καὶ ἀθάνατον οὖσαν, εἰ φιλόσοφος ἀνὴρ μέλλων ἀποθανεῖσθαι, θαρρῶν τε καὶ ἡγούμενος ἀποθανὼν ἐκεῖ εὖ πράξειν διαφερόντως ἢ εἰ ἐν ἄλλῳ βίῳ βιοὺς ἐτελεύτα, μὴ ἀνοήτόν τε καὶ ἠλίθιον θάρρος θαρρήσει. τὸ δὲ ἀποφαίνειν ὅτι ἰσχυρόν τί ἐστιν ἡ ψυχὴ καὶ θεοειδὲς καὶ ἦν ἔτι πρότερον, πρὶν ἡμᾶς ἀνθρώπους γενέσθαι, οὐδὲν κωλύειν φῂς πάντα ταῦτα μηνύειν ἀθανασίαν μὲν μή, ὅτι δὲ πολυχρόνιόν τι ἐστι ψυχὴ καὶ ἦν που πρότερον ἀμήχανον ὅσον χρόνον καὶ ἤδει τε καὶ ἔπραττε πολλ' ἄττα.

Write notes on the first and on the last sentences of this passage.

(5) 'Αφοριστέον ἄρα τὴν θρεπτικὴν καὶ αὐξητικὴν ζωήν. ἑπομένη δὲ αἰσθητική τις ἂν εἴη, φαίνεται δὲ καὶ αὐτὴ κοινὴ καὶ ἵππῳ καὶ βοὶ καὶ παντὶ ζῴῳ. λείπεται δὴ πρακτική τις τοῦ λόγον ἔχοντος· τούτου δὲ τὸ μὲν ὡς ἐπιπειθὲς λόγῳ, τὸ δ' ὡς ἔχον καὶ διανοούμενον. διττῶς δὲ καὶ ταύτης λεγομένης τὴν κατ' ἐνέργειαν θετέον· κυριώτερον γὰρ αὕτη δοκεῖ λέγεσθαι. εἰ δ' ἐστὶν ἔργον ἀνθρώπου ψυχῆς ἐνέργεια κατὰ λόγον ἢ μὴ ἄνευ λόγου, τὸ δ' αὐτό φαμεν ἔργον εἶναι τῷ γένει τοῦδε καὶ τοῦδε σπουδαίου, ὥσπερ

κίθαριστοῦ καὶ σπουδαίου κιθαριστοῦ, 'καὶ ἁπλῶς δὴ τοῦτ' ἐπὶ πάντων, προστιθεμένης τῆς κατ' ἀρετὴν ὑπεροχῆς πρὸς τὸ ἔργον· κιθαριστοῦ μὲν γὰρ τὸ κιθαρίζειν, σπουδαίου δὲ τὸ εὖ· εἰ δ' οὕτως, ἀνθρώπου δὲ τίθεμεν ἔργον ζωήν τινα, ταύτην δὲ ψυχῆς ἐνέργειαν καὶ πράξεις μετὰ λόγου, σπουδαίου δ' ἀνδρὸς εὖ ταῦτα καὶ καλῶς, ἕκαστον δ' εὖ κατὰ τὴν οἰκείαν ἀρετὴν ἀποτελεῖται· εἰ δ' οὕτω, τὸ ἀνθρώπινον ἀγαθὸν ψυχῆς ἐνέργεια γίνεται κατ' ἀρετήν, εἰ δὲ πλείους αἱ ἀρεταί, κατὰ τὴν ἀρίστην καὶ τελειοτάτην.

Briefly summarise the argument.

UNSEEN PASSAGE.

II. Translate :—

Καὶ καθάπερ τὸ μέλι λιπεῖ τὰ τετρωμένα καὶ ἡλκωμένα μέρη τοῦ σώματος, οὕτως πολλάκις οἱ ἀληθινοὶ καὶ νοῦν ἔχοντες λόγοι δάκνουσι καὶ παροξύνουσι τοὺς κακῶς πράττοντας, ἐὰν μὴ προσηνεῖς ὦσι καὶ συνείκοντες, ὥσπερ ἀμέλει τὸ ἡδὺ μενοεικὲς ὁ ποιητὴς κέκληκεν, ὡς τῷ ἡδομένῳ τῆς ψυχῆς ὑπεῖκον καὶ μὴ μαχόμενον μηδ' ἀντιτυποῦν. Καὶ γὰρ ὄμμα φλεγμαῖνον ἥδιστα τοῖς σκιεροῖς καὶ ἀλαμπέσιν ἐνδιατρίβει χρώμασι, τὰ δὲ αὐγην ἔχοντα καὶ φῶς ἀποστρέφεται, καὶ πόλις ἐν τύχαις ἀβουλήτοις γενομένη ψοφοδεὲς καὶ τρυφερόν ἐστι δι' ἀσθένειαν ἀνέχεσθαι παρρησίας, ὅτε μάλιστα δεῖται, τῶν πραγμάτων ἀναφορὰν ἁμαρτήματος οὐκ ἐχόντων. Διὸ πάντη σφαλερὸν ἡ τοιαύτη πολιτεία· συναπόλλυσι γὰρ τὸν πρὸς χάριν λέγοντα καὶ προαπολλυσι τὸν μὴ χαριζόμενον. Ὥσπερ οὖν τὸν ἥλιον οἱ μαθηματικοὶ λέγουσι μήτε τὴν αὐτὴν τῷ οὐρανῷ φερόμενον φορὰν μήτε ἀντικρυς ἐναντίαν καὶ ἀντιβατικήν, ἀλλὰ λοξῷ καὶ παρεγκεκλιμένῳ πορείας σχήματι χρώμενον ὑγρὰν καὶ εὐκαμπῆ καὶ περιελιττομένην ἕλικα ποιεῖν, ᾗ σώζεται πάντα καὶ λαμβάνει τὴν ἀρίστην κρᾶσιν, οὕτως ἄρα τῆς πολιτείας ὁ μὲν ὄρθιος ἄγαν καὶ πρὸς ἅπαντα τοῖς δημοσίοις ἀντιβαίνων τόνος ἀπηνὴς καὶ σκληρός, ὥσπερ αὖ πάλιν ἐπισφαλὲς καὶ κάταντες τὸ συνεφελκόμενον οἷς ἁμαρτάνουσιν οἱ πολλοὶ καὶ συνεπιρρέπον, ἡ δὲ ἀνθυπείκουσα πειθομένοις καὶ διδοῦσα τὸ πρὸς χάριν, εἶτα ἀπαιτοῦσα τὸ συμφέρον ἐπιστασία καὶ κυβέρνησις ἀνθρώπων πολλὰ πρᾴως καὶ χρησίμως ὑπουργούντων, εἰ μὴ πάντα δεσποτικῶς καὶ βιαίως ἄγοιντο, σωτήριος, ἐργώδης δὲ καὶ χαλεπὴ καὶ τὸ σεμνὸν ἔχουσα τῷ ἐπιεικεῖ δύσμικτον· ἐαν δὲ μιχθῇ, τοῦτό ἐστιν ἡ πάντων μὲν ῥυθμῶν, πασῶν δὲ ἁρμονιῶν ἐμμελεστάτη καὶ μουσικωτάτη κρᾶσις, ᾗ καὶ τὸν κόσμον ὁ θεὸς λέγεται διοικεῖν, οὐ βιαζόμενος, ἀλλὰ πειθοῖ καὶ λόγῳ παράγων τὴν ἀνάγκην.

PLUTARCH, *Phocion*, ch. 2.

Monday, 9th April 1894.—9 *to* 12 *o'clock.*

I. (1) Translate the following passages, with short notes on points of Homeric Syntax :—

(*a*) τοιούτῳ δὲ ἔοικας, ἐπεὶ λούσαιτο φάγοι τε,
εὐδέμεναι μαλακῶς· ἡ γὰρ δίκη ἐστὶ γερόντων.

(*b*) πολλάκι που μέλλεις ἀρήμεναι ἐν μεγάροισιν
τηλοῦ ἐμοὶ νόστοιο τέλος γλυκεροῖο γενέσθαι.

(*c*) ὁ δ' ἤδη τόξον ἐνώμα
πάντῃ ἀναστρωφῶν, πειρώμενος ἔνθα καὶ ἔνθα,
μὴ κέρα ἶπες ἔδοιεν ἀποιχομένοιο ἄνακτος.

(*d*) οὐδὲ τραπέζῃ
γνώτην ἀλλήλων.

(*e*) σχέδοθεν δέ οἱ ἦλθεν Ἀθήνη.

(*f*) αἴ γὰρ ἐγὼν ὧς
νοστήσας Ἰθάκηνδε κιχὼν Ὀδυσῆ' ἐνὶ οἴκῳ
εἴποιμ', ὡς παρὰ σεῖο τυχὼν φιλότητος ἀπάσης
ἔρχομαι.

(*g*) μετὰ γάρ τε καὶ ἄλγεσι τέρπεται ἀνήρ,
ὅς τις δὴ μάλα πολλὰ πάθῃ καὶ πολλ' ἐπαληθῇ.

Deduce the various uses of μετά from its original meaning.

(*h*) ἦ ἰθὺς σῆς μητρὸς ἴω καὶ σοῖο δόμοιο ;

(*i*) αὐτίκ' ἐπεί κε πυρὸς θερέω ἀλέη τε γένηται.

(*j*) οὐ μέν τοι κείνω γε πολὺν χρόνον ἀμφὶς ἔσεσθον
φυλόπιδος κρατερῆς, ὅποτε μνηστῆρσι καὶ ἡμῖν
ἔν μεγάροισιν ἐμοῖσι μένος κρίνηται Ἄρηος.

(2) Translate, and comment briefly on :—

(*a*) ὁ λεύκασπις ὄρνυται λαὸς εὐ-
τρεπὴς ἐπὶ πτόλιν διώκων.

(*b*) ποδῶκες ὄμμα, χεῖρα δ' οὐ βραδύνεται
παρ' ἀσπίδος γυμνωθὲν ἁρπάσαι δόρυ.

(*c*) θεοῖς μὲν ἤδη πως παρημελήμεθα,
χάρις δ' αφ' ἡμῶν ὀλομένων θαυμάζεται.

(*d*) τέλειαι γὰρ παλαιφάτων ἀραὶ
βαρεῖαι καταλλαγαί.

(*e*) βοὰ δὲ νικαφόρῳ σὺν Ἀριστοκλείδᾳ πρέπει,
ὃς τάνδε ναῦσον εὐκλέι προσέθηκε λόγῳ
καὶ σεμνὸν ἀγλααῖσι μερίμναις
Πυθίου Θεάριον.

(*f*) μαρνάσθω τις ἔρδων
ἀμφ' ἀέθλοισιν γενεὰν Κλεονίκου
ἐκμαθών· οὗτοι τετύφλωται μακρὸς
μόχθος ἀνδρῶν· οὐδ' ὁπόσαι δαπάναι
ἐλπίδων ἔκνιξ' ὄπιν.

II. (1) Translate, and comment briefly on :—

(*a*) εἰσὶ γὰρ δή, φασὶν οἱ περὶ τὰς τελετάς, ναρθηκοφόροι μὲν πολλοί, βάκχοι δέ τε παῦροι· οὗτοι δ' εἰσὶ κατὰ τὴν ἐμὴν δόξαν οὐκ ἄλλοι ἢ οἱ πεφιλοσοφηκότες ὀρθῶς.

(*b*) τί δ' αὖ ; ἔστι τι καὶ τοιόνδε ἐν αὐτοῖς, οἷον μεταξὺ ἀμφοτέρων πάντων τῶν ἐναντίων δυοῖν ὄντοιν δύο γενέσεις, ἀπὸ μὲν τοῦ ἑτέρου ἐπὶ τὸ ἕτερον, ἀπὸ δ' αὖ τοῦ ἑτέρου πάλιν ἐπὶ τὸ ἕτερον ;

(*c*) αὐτὴ ἡ οὐσία, ἧς λόγον δίδομεν τοῦ εἶναι.

(*d*) ἆρ' ἐπειδὰν το θερμὸν καὶ τό ψυχρὸν σηπεδόνα τινὰ λάβῃ, ὥς τινες ἔλεγον, τότε δὴ τὰ ζῶα ξυντρέφεται ;

(*e*) ὅταν τε οὖν ὁρμήσαν ὑποχωρήσῃ τὸ ὕδωρ εἰς τὸν τόπον τὸν δὴ κάτω καλούμενον, τοῖς κατ' ἐκεῖνα τὰ ῥεύματα διὰ τῆς γῆς εἰσρεῖ τε καὶ πληροῖ αὐτὰ ὥσπερ οἱ ἐπαντλοῦντες.

(*f*) ἔτι δὲ τί διαφέρει τῷ ἀκούσια εἶναι τὰ κατὰ λογισμὸν ἢ θυμὸν ἁμαρτηθέντα ; φευκτὰ μὲν γὰρ ἄμφω, δοκεῖ δὲ οὐχ ἧττον ἀνθρωπικὰ εἶναι τὰ ἄλογα πάθη.

(*g*) τῇ δ' ἡδονῇ τούτων οὐδέτερον ὑπάρχει· ἡσθῆναι μὲν γὰρ ἔστι ταχέως ὥσπερ ὀργισθῆναι ἥδεσθαι δ' οὔ, οὐδὲ πρὸς ἕτερον, βαδίζειν δὲ καὶ αὐξάνεσθαι καὶ πάντα τὰ τοιαῦτα.

(*h*) εἰ δή ἐστι τοῦ κατὰ φύσιν ἀναπλήρωσις ἡ ἡδονή, ἐν ᾧ ἡ ἀναπλήρωσις, τοῦτ' ἂν ἥδοιτο· τὸ σῶμα ἄρα. οὐ δοκεῖ δέ. οὐδ' ἔστιν ἄρα ἡ ἀναπλήρωσις ἡδονή, ἀλλὰ γιγνομένης μὲν ἀναπληρώσεως ἥδοιτ' ἄν τις, καὶ τεμνόμενος λυποῖτο.

(*i*) ὁ γὰρ βουλευόμενος ἔοικε ζητεῖν καὶ ἀναλύειν τὸν εἰρημένον τρόπον ὥσπερ διάγραμμα.

(2) In what sense is the unity of moral virtue asserted by Aristotle?

III. Answer any two of the following :—

(*a*) What are the leading characteristics of the Hesiodic as compared with the Homeric poems?

(*b*) What are the parts into which a Greek tragedy divides itself? Give the laws of the iambic senarian and of one of the choral metres employed by Aeschylus ; and discuss the question of the rhythmical correspondence of Strophe and Antistrophe in its bearing on textual criticism.

(*c*) Summarise the chief arguments presented in the *Phaedo* on the subject of Immortality, and show how the various doctrines of the Platonic system are woven into the discussion.

(*d*) How far are the following Greek and English terms equivalent to one another :—εὐδαιμονία, "happiness" ; θεωρία, "contemplation" ; ἕξις, "habit" ; προαίρεσις, "will" ; τὸ μέσον, "the Mean"?

IV. Answer any *two* of the following :—

(*a*) Give some account of the rise of the Persian empire, and its history down to the battle of Salamis. Add further details about the reign of Darius Hystaspes, illustrating from the *Persae*.

(*b*) Trace the development of judicial institutions at Athens, indicating also their political influence.

(*c*) What was the nature of the control exercised by the Ecclesia over the foreign policy of Athens? Illustrate it from Greek history.

ANCIENT PHILOSOPHY (Optional Subject).

Monday, 9th April 1894.—2 *to* 3.30 *o'clock.*

(*Not more than* Two *out of the first* Three *Questions are to be attempted.*)

1. Trace the influence on early Greek philosophy of the successive developments of science.

2. Explain carefully the nature and functions of νοῦς in the theory of Anaxagoras.

3. Give a short account of the Atomic Theory of Democritus, and indicate its relation to the Eleatic School.

4. Describe the attitude of the Sophists towards the study of φύσις.

5. Translate and explain :—

(*a*) Ἀρχήν τε καὶ στοιχεῖον εἴρηκε τῶν ὄντων τὸ ἄπειρον, πρῶτος τοῦτο τοὔνομα κομίσας τῆς ἀρχῆς.

(*b*) Τωὐτὸν δ' ἐστὶ νοεῖν τε καὶ οὕνεκέν ἐστι νόημα.

(*c*) Ἓν παντὶ παντὸς μοῖρα ἔνεστι πλὴν νόου· ἔστιν οἷσι δὲ καὶ νόος ἔνι.

(*d*) Καὶ τὸν Ἀντισθένους λόγον τὸν πειρώμενον ἀποδεικνύειν, ὡς οὐκ ἔστιν ἀντιλέγειν, οὗτος πρῶτος διείλεκται, καθά φησι Πλάτων.

COMPARATIVE PHILOLOGY (Optional Subject).

Monday, 9th April 1894.—2 *to* 3.30 *o'clock.*

I. Define "Phonetic Change." In what sense is it true that "Phonetic laws have no exceptions"?

II. Analyse the following words (*a*) pointing out the root, and the formative and inflectional suffixes; (*b*) explaining and illustrating the changes the words have undergone; (*c*) giving cognates in other anguages :—

πάντεσσι, σπλήν, μήτρως, ἔρχατο, εἴρυσα, Ἀΐδαο, ζῆν, ἔσβεσα, χθών, μήνη, μέτασσαι, ἑορτή, οἶσε, νεικείεσκε, ἔρχομαι.

manubiae, campestribus, procul, farier, regent, meridies, vapor, istinc, magistreis, possuit (*insc.*), *viass* (*Oscan*), *secundum, munia, senatuis.*

III. What traces are left in Greek and Latin of Locative and Instrumental forms?

IV. Defend or criticise the connection assumed between the following sets of words :—θήρ, *deer; θυγάτηρ, daughter;* ἔδνον, *wed;* fluo, *flow;* dies, *day;* ὕδωρ, *unda;* πρεσβύς, *priscus.*

V. Explain the meaning of "vowel-intensification" in Greek and Latin.

B.—MENTAL PHILOSOPHY.

LOGIC, PSYCHOLOGY, AND METAPHYSICS.

FIRST PAPER.

Monday 2nd April, 1894.—2 *to* 5 *o'clock.*

1. Formulate the *Dictum de Omni et Nullo* in what you consider to be the best manner for Formal Logic. Discuss its relation (1) to the "Laws of Thought"; (2) to the laws of the Syllogism; (3) to your definition of Inference.

2. What explanations have been given of Aristotle's list of categories? Give a critical account of the points of view from which other classifications have been attempted.

3. What do you consider to be the sphere of Logic and the most serious questions with which it has to deal. Comment on the following:—"In all probability the discord observable among the ordinary treatises on school logic is due to the want of recognition of the true place which can be assigned to the subject treated."

4. It has been ascertained that the development of speech in infants illustrates every imperfection to be found in the speech of the insane. Apply the resources of inductive logic to determine the value of the argument that the speech-mechanism of the insane has reverted to a form it had in infancy.

5. Write a commentary on the following:—"The methods of Induction are not 'inductive' since they will not generalise beyond the given instance. They fail again of being 'inductive' since they cannot be applied to simple facts [*i.e.*, to particulars as such]. They will not work unless they are supplied with universals."

6. Discuss the view that, as ultimate premises in knowledge are not capable of explanation by reference to grounds, they are matters of Belief rather than of Knowledge.

SECOND PAPER.

Tuesday, 3rd April 1894.—9 *to* 12 *o'clock.*

1. State and discuss the several psychological theories respecting the origin and nature of the concept.

2. Trace the psychological growth of self-consciousness, criticising accounts that are hostile to the one you adopt.

3. Critically consider (*a*) Berkeley's psychology, (*b*) his epistemology, (*c*) his ontology.

4. Investigate the import for epistemology of the antinomies of cosmology.

5. Compare the *Theaetetus* with Kant's first *Kritik.*

6. With what object does Aristotle (in *Metaph.*, Book I.) undertake a history of his predecessors? Give (1) the general result, and (2) a more particular account of his treatment of Anaxagoras and Pythagoras.

THIRD PAPER.

Tuesday, 3rd April 1894.—1 *to* 4 *o'clock.*

1. Examine the self-consistency of the first book of Hume's *Treatise.*

2. Carefully consider the relation of Kant to Leibnitz, both in its positive and negative aspects.

3. How does Lotze formulate the problems of Ontology? Discuss his arguments against the procedure of Hegel.

4. Estimate the validity of Spinoza's method in metaphysics. Compare it with the method of Descartes, of Kant, and of Hegel.

5. "The Absolute has no assets beyond appearances; and again, with appearances alone to its credit, the Absolute would be bankrupt." —*Bradley.*

Discuss, in the light of this statement, the relation between the Absolute and the world of "appearances." Refer specially to the systems of Spinoza and Hegel.

MORAL PHILOSOPHY.

FIRST PAPER.

Wednesday, 4th April 1894.—9 *to* 12 *o'clock.*

Write an Essay upon :—

The Ethical Conception of the State.

SECOND PAPER.

Saturday, 7th April 1894.—9 *to* 12 *o'clock.*

1. With what object, and on what principle, would you draw up a classification of virtues? Give the outline of such a classification.

2. What are the requirements of an ethical end? Discuss, on this ground, the end propounded by Mr Spencer.

3. Comment on the following :—"If society be the soil out of which human virtues spring, ethical emotion, on the other hand, is the soil out of which society itself springs."

4. Explain the nature of Will, with special reference to the conscious willing of immoral actions.

5. Examine the following argument of Hume :—"Morals excite passions, and produce or prevent actions. Reason itself is utterly impotent in this particular. The rules of morality, therefore, are not conclusions of our reason."

THIRD PAPER.

Saturday, 7th April 1894.—1 *to* 4 *o'clock.*

1. Investigate the connection of Plato's treatment of ethical problems with his psychology and his theory of ideas.

2. Give Aristotle's treatment of friendship, and explain, "Justice in its highest and most perfect form takes the form of friendliness."

3. Annotate these propositions of Spinoza :—Summus mentis conatus summaque virtus est res intelligere tertio cognitionis genere. Amor Dei intellectualis, qui ex tertio cognitionis genere oritur, est aeternus.

4. Contrast the treatment of the freedom of will to be found in Green's *Prolegomena*, and in Mr Sidgwick's *Methods of Ethics*.

5. Contrast the postulates of Ethics adopted by Kant, with the data of Ethics adopted by Mr Spencer.

C.—MATHEMATICS AND NATURAL PHILOSOPHY.

MATHEMATICS.

Friday, 6th April 1894.—9 *to* 12 *o'clock.*

1. Discuss the maxima and minima of a function of one variable.

Show that $\theta\cos\theta-\frac{\pi}{4}\sin\theta$ cannot vanish if $0<\theta<\frac{\pi}{4}$.

Find the points at which the curve

$$2x^3+y^3-3x^2y+3x^2=7$$

is parallel to the axes, and trace the curve.

2. Find the area of the section of $\frac{x^2}{a^2}+\frac{y^2}{b^2}+\frac{z^2}{c^2}=1$ by

$$lx+my+nz=p.$$

If the section be always similar to a given ellipse, find the cone generated by the perpendicular from the origin on the plane of section.

3. Find an expression for an element of arc of a plane curve in the form

$$ds^2=Adr^2+Bdrdp+Cdp^2$$

where r is the distance from a fixed point and p the perpendicular distance from a fixed line.

Deduce an expression for the arc of a conic in terms of the radii from a focus to its ends.

4. Show that four concurrent lines cut any other line in a range of constant cross ratio. Define a harmonic pencil, and find the condition that

$$ax^2+2bxy+by^2=0$$

are conjugate with respect to

$$a'x^2+2h'xy+b'y^2=0.$$

The condition that the lines

$$ax^4+bx^3y+cxy^3+dy^4=0$$

form a harmonic pencil is $ac^2+db^2=0$.

Find an equation giving the values of the cross ratio $(ABCD)$ for which the four points A, B, C, D form a harmonic pencil.

5. Show that

$$x=\frac{a+bt+ct^2}{l+mt+nt^2},\quad y=\frac{d+ct+ft^2}{l+mt+nt^2}$$

represent a conic, and find its equation in the form $f(x, y)=0$.

Prove that any cubic with a double point may be represented by equations of the form

$$x=\phi(t),\ y=\psi(t)$$

where ϕ and ψ are rational functions of t, and state the proposition for any algebraic plane curve of which this is a particular case.

6. Investigate a formula for the number of r-permutations of n things when repetition is allowed.

Circles are drawn through each three of m points in a plane. Show that in general they intersect in

$$\frac{2m-1}{2}\cdot\frac{m\,!}{3\,!\,3\,!\,(m-5)\,!}$$

other points.

7. A, B, C, D, E are five points, t_A the length of the tangent from A to the sphere $BCDE$, v_A the volume of the tetrahedron $BCDE$. If t_B, v_B, etc., are similar quantities for the other points, show that

$$t_A^2v_A=t_B^2v_B=t_C^2v_C=t_D^2v_D=t_E^2v_E.$$

8. Eliminate x between

$$a_1x^{n-1}+a_2x^{n-2}+\ \ldots\ a_n=0,\ x^n-1=0.$$

If $ax^2+bx+c=0$ and $bx^2+cx+a=0$ have a common root, it is also a root of $cx^2+ax+b=0$. If a, b, c are real, show that the common root is unity.

9. The origin is a focus of

$ax^2+2hxy+by^2+2gx+2fy+c=0$ (rectangular co-ordinates); determine the relations among the coefficients, and find the corresponding directrix.

10. Show that if

$$\Delta=\begin{vmatrix} x^\alpha, & x^\beta, & x^\gamma, & x^\delta \\ y^\alpha, & y^\beta, & y^\gamma, & y^\delta \\ z^\alpha, & z^\beta, & z^\gamma, & z^\delta \\ u^\alpha, & u^\beta, & u^\gamma, & u^\delta \end{vmatrix}$$

and $\Delta'=(x-y)(x-z)(x-u)(y-z)(y-u)(z-u)$;

then

$$\frac{d^4\Delta}{dxdydzdu}=\frac{\alpha\beta\gamma\delta}{xyzu}\Delta$$

$$\frac{d^4\Delta}{d\alpha d\beta d\gamma d\delta}=\log x\,\log y\,\log z\,\log u.\Delta$$

$$\frac{d^4(xyzu\Delta)'}{dxdydzdu}=24\ \Delta\,.$$

11. Evaluate $\iiint x^{\alpha}y^{\beta}z^{\gamma}dxdydz$ taken throughout the space bounded by the co-ordinate planes and $x+y+z=1$.

Find the length of the evolute of an ellipse of axes $2a$, $2b$, its area, and the centroid of either part into which it is divided by the minor axis.

12. Express the rectangular Cartesian co-ordinates (x, y, z) in terms of elliptic co-ordinates, and evaluate $\iiint \frac{dxdydz}{xyz}$ taken throughout the space bounded by six confocal quadrics, which have the Cartesian axes as principal axes.

Friday, 6th April 1894.—2 *to* 5 *o'clock.*

1. If $f(x)=1+x/1\,!+x^2/2\,!+x^3/3\,!+ \ldots\ldots$ *ad* ∞, show that $f(x)\times f(y)=f(x+y)$, and hence sum the series $f(x)$ for real commensurable values of x.

Show that the series

$$1^3/1\,! - 3^3/3\,! + 5^3/5\,! - \ldots\ldots \text{ ad } \infty$$

is convergent; and find its sum.

2. Find an expression for the sum of n terms of a series in terms of its first term and the successive differences of that term.

Show that $\pi = 2\{1+1/3+1\cdot2/3\cdot5+1\cdot2\cdot3/3\cdot5\cdot7+ \ldots\ldots \text{ ad } \infty\}$.

3. Find the tangential equation to a conic whose equation in point co-ordinates is given.

L and M are two given straight lines; find the envelope of the lines joining the points of L and M which are conjugate with respect to a given conic; and discuss the various cases in which the locus degenerates.

4. Show that the discriminant of the characteristic of a conic is an invariant for any transformation from one set of oblique Cartesian axes to another; and find the modulus of invariance.

A conic of given size and shape always touches two fixed straight lines inclined at an angle ω; find the equation to the locus of the centre of the conic.

5. Establish Taylor's Theorem for a function of two independent variables.

Find the stationary values of the function $x^2+xy+y^2+x^4-y^4$; and discuss the nature of the value corresponding to $x=0$, $y=0$.

6. Show that the radius of curvature at any point of a curve is $p+d^2p/d\psi^2$, where p and ψ have the usual meanings.

Find the equation to the curve which has the same curvature at every point as its pedal has at the corresponding point.

7. Show how to find the centre of curvature at any point of a roulette, the body and space centrodes being given.

Find the Body Centrode when the roulette is a straight line and the Space Centrode also a straight line.

8. Find the conditions that the two straight lines $(\alpha,\beta,\gamma,l,m,n)$ $(\alpha',\beta',\gamma',l',m',n')$ be conjugate with respect to the quadric $Ax^2+By^2+Cz^2-1=0$.

Show that in general through any given point two straight lines can be drawn each of which is parallel to its conjugate.

9. Prove that the integral $\int_0^\infty dx \sin x/x$ is convergent and evaluate it.

Evaluate $\int_0 dx\, x^n e^{-x^2}$, n being a positive integer.

10. Show that an ordinary linear differential equation of the second order can be solved by quadratures if a particular solution of its subsidiary equation be known.

Illustrate by solving the equation

$$(x^2-1)\frac{d^2y}{dx^2}-x\frac{dy}{dx}+2y/(x^2+1)=x.$$

Solve the equation $(x+py)^2-c^2(1+p^2)=0$ by means of the tangential transformation $X=x+py$, $Y=y(1+p^2)^{\frac{1}{2}}$; and discuss its singular solution.

11. Give the geometrical theory of the solution of a linear partial differential equation.

Solve the following :—

$$\left.\begin{aligned} t\left(\frac{d^2x}{dt^2}+x\right)+2\frac{dx}{dt}&=0\\ t\frac{d(x-y)}{dt}+2y&=0\end{aligned}\right\}$$

$$x(y^2+z^2-x^2)\frac{dz}{dx}+y(z^2+x^2-y^2)\frac{dz}{dy}=z(x^2+y^2-z^2).$$

12. Assuming the necessary and sufficient condition for the totality of $Pdx+Qdy+Rdz=0$, deduce the Rule of Lagrange and Charpit for obtaining a complete primitive of $f(x,y,z,p,q)=0$.

Determine R so that $(y+z)p+(x+z)q=z$ and $yp+xq=zR$ may have a common solution.

Saturday, 7th April 1894.—9 *to* 12 *o'clock.*

Write Dissertations on not more than TWO *of the following subjects:—*

1. The convergency of a series all of whose terms are positive.

2. The differentiation of a definite integral with respect to a parameter, with applications to the evaluation of definite integrals.

3. The singular solutions of an ordinary differential equation of the first order. In particular show, by considering the series which represents any integral near a point on the p-discriminant-locus, that this locus is in general a locus of cusps on the integral curves.

4. The generating lines of a quadric surface, with special reference to the modelling of the surface.

5. Fourier's Series.

6. The Hessian of a binary form. By considering Hessians and Jacobians obtain invariants and covariants of the system

$$(a_0, a_1, a_2, a_3)(x, y)^3,$$
$$(b_0, b_1, b_2)(x, y)^2.$$

NATURAL PHILOSOPHY.

FIRST PAPER.

Saturday, 7th April 1894.—1 *to* 4 *o'clock.*

[*More credit will be attached to complete treatment of a moderate number of Questions than to discursive or partial treatment of a larger number.*]

1. Find the equilibrium surface of water in a bucket sliding down a smooth plane.

Show that if a barometer be kept upright and raised with a constant acceleration the height of the mercury is diminished, and that by lowering it with constant acceleration the mercury may be made to fill the tube whatever be its length.

2. Show how considerations of energy enable us to find the positions of equilibrium of a system.

AB, BC, CD are three equal uniform rods jointed freely at B and C; AB and CD rest symmetrically on two smooth pegs in the same horizontal plane whose distance apart is less than the length of a rod, and BC is horizontal and below the pegs. Find the position of equilibrium and consider the stability.

3. Show that a uniform ellipsoid can be found equimomental with any given body.

Given a sphere of uniform material, find the dimensions of (1) a cube, (2) a right circular cylinder, of the same material which shall be equimomental with the sphere.

Find the moment of inertia of a cube about a line through a vertex parallel to a diagonal which does not pass through that vertex.

4. Find the whole attraction between parts of a homogeneous sphere which lie respectively without and within any assigned spherical surface.

5. Prove Green's Theorem connecting volume and surface integrals involving two continuous functions U, V, and their space-derivatives.

Discuss the particular case when $U=$ constant and $V=r$, the distance from a given point, and interpret the result when the integrals are taken through and over any finite simply-connected region of space.

6. Assuming the relation between charges and their images in a sphere, establish the relations between potentials, surface densities, and volume densities, and their respective inversions in the sphere. Show how by inversion we obtain, from a uniform spherical charge, the distribution of charge on a sphere at zero potential under the influence of a point charge. Calculate the surface densities in the latter case, and investigate the general form of the equipotential surfaces.

7. Investigate the small vibrations of a stretched string, which has been plucked at its middle point, and find expressions for the kinetic and potential energies at any instant.

8. The surface of a solid sphere is subjected to a simple harmonic variation of temperature, $V \sin nt$. Find the law of variation of temperature at any point in the substance of the sphere ; and show how, from experiments of this kind, the value of the conductivity may be determined.

9. Give, generally, an explanation of the coloured rings seen when a plate of iceland-spar, cut perpendicularly to the optic axis, is interposed between two Nicol prisms.

10. Find the path of a particle not acted on by gravity, there being resistance proportional to the square of the speed, and a transverse force proportional to the speed and to the sine of the inclination of the path to a fixed line—the direction of the force being perpendicular to the plane in which this angle lies.

11. Show that the electric image of a sphere, whose surface-density is inversely as the cube of the distance from a given point, is another sphere with a precisely similar law of surface-density.

12. Find the effect of surface-tension on the rate of propagation of harmonic surface-waves in water.

SECOND PAPER.

Monday, 9th April 1894.—9 *to* 12 *o'clock.*

[*More credit will be attached to complete treatment of a moderate number of Questions than to discursive or partial treatment of a larger number.*]

1. In Maxwell's electromagnetic system we have the following rela-

tions among the components X, Y, Z of electric force and L, M, N of magnetic force, at any point in free ether :—

$$A\frac{dX}{dt}=\frac{dM}{dz}-\frac{dN}{dy}, \text{ etc.}, \qquad \frac{dX}{dx}+\frac{dY}{dy}+\frac{dZ}{dz}=0,$$

$$A\frac{dL}{dt}=\frac{dZ}{dy}-\frac{dY}{dz}, \text{ etc.}, \qquad \frac{dL}{dx}+\frac{dM}{dy}+\frac{dN}{dz}=0.$$

Show that values of these components can be derived from any three integrals, ξ, η, ζ of the elastic solid equation

$$A^2\frac{d^2\theta}{dt^2}=\frac{d^2\theta}{dx^2}+\frac{d^2\theta}{dy^2}+\frac{d^2\theta}{dz^2},$$

which are connected by the relation

$$\frac{d\xi}{dx}+\frac{d\eta}{dy}+\frac{d\zeta}{dz}=0,$$

in the form

$$X=\frac{d\xi}{dt}, \quad AL=\frac{d\zeta}{dy}-\frac{d\eta}{dz},$$

$$Y=\frac{d\eta}{dt}, \quad AM=\frac{d\xi}{dz}-\frac{d\zeta}{dx},$$

$$Z=\frac{d\zeta}{dt}, \quad AN=\frac{d\eta}{dx}-\frac{d\xi}{dy}.$$

2. Form and integrate the equation for small transverse disturbances of an infinite, inextensible, massless, tended cord, to which pellets are attached at equal intervals ; the pellets being alternately of single and of double, mass.

3. Light, diverging from a point, passes symmetrically through a small circular aperture. Find the intensity at any point in the axis of the beam.

4. Calculate the effect of pressure upon the maximum density point of water ; pointing out clearly what data (of the ordinary experimental kind) are necessary.

5. If the resistance of the air to a particle is proportional to the velocity, and the particle is projected upwards with a great velocity V, find the times of ascent and descent, neglecting quantities of the order $\frac{1}{V}$.

If it rise to a height H, and μ is the acceleration due to resistance for unit velocity, show that to the same approximation the times of ascent and descent are

$$\frac{1}{\mu}\log\frac{\mu^2 H}{g} \text{ and } \frac{\mu H}{g}+\frac{1}{\mu}.$$

6. Find the curve in which a telegraph wire hangs between two points in a horizontal plane. Taking the length of the wire (supposed

inextensible under traction) at 0° F. as equal to the distance between the posts, find the sag (supposed small) at t° F., and find the temperature at which the wire will touch the earth.

7. A particle is projected horizontally from the lowest point inside a smooth spherical shell. If it leaves the shell, show that the radius of curvature at the beginning of the parabolic path is the radius of the sphere. Determine velocities of projection in the cases where the particle (1) returns to the surface at the lowest point, and (2) strikes the surface perpendicularly.

8. Show that the surface of a liquid, raised by capillary forces between two vertical planes, is approximately a circular cylinder, and find to this approximation the height of the lines where planes and liquid meet.

9. The period of oscillation of a simple pendulum of length l oscillating through an angle 2α is

$$2\pi\sqrt{\frac{2l}{g}}\int_0^{\alpha} d\theta(\cos\theta-\cos\alpha)^{-\frac{1}{2}},$$

or if α is small,

$$2\pi\sqrt{\frac{l}{g}}\left(1+\frac{\alpha^2}{16}\right).$$

10. A plane figure is moving in its own plane. Show that there is, in general, an instantaneous centre which coincides for the moment with that point in the figure which is at rest; also, that there is a point which has no acceleration, known as the acceleration centre. Find the acceleration of the point in the figure which coincides with the instantaneous centre of rotation; and show that all points having the same magnitude of acceleration lie on a circle about the acceleration centre.

11. Discuss the motion of a particle which slides down the inner surface of a rough hemispherical bowl. Find the value of the coefficient of friction so that the particle, starting from rest at the rim, and passing through the lowest point, shall just reach the limiting position of equilibrium on the other side.

12. A cube is rotating with a given angular velocity about a diagonal. The extremities of an edge, which does not meet the diagonal, are suddenly fixed, and instantly let go. Find the subsequent motion of the cube, and compare the kinetic energies in the original and final states. Find also the impulses at the corners.

13. Show clearly how the theory of the Potential enables us to derive vector quantities from a scalar quantity. Interpret the expression $d^2V/dx^2+d^2V/dy^2+d^2V/dz^2$, where V is a potential, and prove that if the potential is constant through any finite portion of space, it must be constant through all space which can be reached from this portion without passing through distributions of matter.

THIRD PAPER.

Monday, 9th April 1894.—1 *to* 4 *o'clock.*

[*More credit will be attached to complete treatment of a moderate number of Questions than to discursive or partial treatment of a larger number.*]

1. Forces, equal in magnitude, are given acting along the six edges of an equilateral tetrahedron. Reduce the system to a resultant force along the central axis and a resultant couple about that axis. Find the condition that the central axis passes through a vertex.

2. Prove that the kinetic energy and moment of momentum about any axis of a rigid body can be expressed in terms of the motion of the centre of mass, and the motion of the body about this centre.

3. A rhombus, whose joints are perfectly flexible, consists of uniform rods of equal mass. Find the position (under gravity) of equilibrium when two contiguous rods rest on the surface of a smooth cylinder of radius equal to one-third the length of each rod.

4. A thin plank, 10 feet long and 1 inch thick, is laid symmetrically across a rough horizontal bar 4 inches in diameter. Masses of 60 lbs. are attached to the ends, which are then found to droop 2 feet below the level of the line of contact of plank and bar. Find the period of small oscillations, neglecting the mass of the plank, (1) when the motion is symmetrical about a vertical plane through the axis of the bar, (2) when the motion is the kind known as "see-saw."

5. Investigate the expression for the Virial in the case of a large number of free particles moving about in all directions with equal speeds within a closed region.

6. Define, *in any way you please*, the mean free path of a particle in a fixed unit space containing a very large number of small equal elastic spherical, particles. Suppose the fraction

$$4\sqrt{\frac{h^3}{\pi}}\varepsilon^{-hr^2}r^2dr$$

of them have speeds between r and $r+dr$, while the directions of motion are evenly distributed for each speed, calculate the mean free path in terms of the diameter of a particle.

7. The sides of an infinite uniform plate are subjected to given changes of temperature, the same throughout each side separately. Find the temperature of any internal layer.

As an example, suppose the plate (originally of uniform temperature throughout) to have one side raised in temperature at the rate of 10°C. per minute, while the other is cooled 1°C. per minute, what will be the internal state after 20 minutes?

8. An endless, uniform chain, under no external forces, is rotating in one plane. Find the rate at which small transverse disturbances, radial and perpendicular to its plane, will travel round it.

9. A solid sphere, a spherical shell, a solid cylinder, and a cylindrical shell, each homogeneous, move from rest at the same height down a rough inclined plane. Show that those which roll without slipping move fastest, those which slip move all at the same speed, and if none slip, find in what order they pass any point.

10. Show that any linear transformation (with rectangular co-ordinates) represents a homogeneous strain, and find the condition that it represents a pure strain.

Show also that two homogeneous strains superposed give a homogeneous strain.

11. Show that the surface integral over any closed surface of the normal component inwards of the attraction of any gravitating matter is 4π times the mass inside the surface.

Deduce or otherwise prove Laplace's Equation on the potential of such matter.

Prove that the Centre of Gravity of a centrobaric body lies in its interior.

12. Four points $ABCD$ are joined by six wires of given resistances with a given $E.M.F.$ in each. Find the difference of potential of any two points, and the condition that AB and CD are conjugate.

13. $ABCD$ is a rhombus with angles of $45°$ at A and C: $BEDF$ is a similar rhombus, F lying between A and E; FG, EH are perpendiculars from F, E on DE, BF respectively. A frame is formed of bars AB, BC, CD, DA, AF, CE, DF, DG, FG, BH, BE, EH, HG joined together at their ends. (i) A thrust is applied between D and B, (ii) a tension is applied between A and C. Draw a force diagram for each case: and show hence or otherwise that if $Q=(1+\sqrt{2})P$ the forces in each bar except the four outer ones will be the same in the two cases.

Bursaries, Prizes, Scholarships, and Fellowships in Arts.

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	16—	George Heriot.	At present £480 0 0	16	3	£30 0 0	Governors of George Heriot's Trust.
		Do. Bursaries for Girls.	630 0 0	13	3	30 0 0	Do.
		Do. High School University Bursaries.	270 0 0	9	3	30 0 0	Do.
II.	16—	Do. For Young Men leaving Heriot's Hospital School.	Regulated by No. of Candidates.	1	4	30 0 0	Do.
III.	1619	Archibald Johnston, Merchant in Edin.	11 2 2	1	4	11 2 2	Earl of Haddington.
IV.	1622	John Trotter of Mortonhall.	4 10 1	1	4	4 10 1	Trotter of Mortonhall.
V.	1626 1629 1640	Hugh Wight and David M'Call.	4 14 5	1	4	4 14 5	Town Council and Louis of Plean, two choices alternately
VI.	1639	Dr Robt. Johnstone of London.	25 0 0	2	4	12 10 0	Johnstone of Annandale.
VII.	1639	Do. do.	25 0 0	2	4	12 10 0	Town Council.
VIII.	1642 1653	Mausie Weir, relict of R. Dobie, Mer., & Dean of Guild of Edin., and D. Jenkins, Mer., Edin.	5 11 1	1	4	5 11 1	Town Council.
IX.	1644	Jas. Dalgliesh, Merchant, Edin.	11 2 2	1	4	11 2 2	Do.
X.	1673	Jn. M'Morran, Merchant.	2 15 6	1	4	2 15 6	Do.
XI.	1678	John Penman, Bailie and Merchant, Edinburgh.	14 15 0	1	4	14 15 0	Society for the Benefit of the Sons of the Clergy.
XII.	1678	Hector Ford of Branxton.	33 6 6	3	4	11 2 2	Town Council.
XIII.	1687	Sir Andrew Ramsay of Abbotshall.	11 2 2	1	4	11 2 2	Do. and Ministers of Edinburgh.
XIV.	1696	Hepburn and Lightbody.	5 16 8	1	4	5 16 8	Town Council and Campbell of Aberuchill, alternately.
XV.	1698	Ad. Chrystie, Under Clerk of Session.	18 0 0	1	4	18 0 0	Faculty of Advocates.
XVI.	1702	Thos. Bryson, Bailie and Merchant in Dunbar.	10 0 0	2	4	5 0 0	Ministers of the Presbytery of Dunbar.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XVII.	1703	James Pringle of Torwoodlee.	£6 7 9	1	4	£6 7 9	Pringle of Torwoodlee.
XVIII.	1714	Rev. Robert Brown, of Protestant Consistory at Zamose.	25 0 0	2	4	{ 15 0 0 { 10 0 0	Town Council.
XIX.	1723	Alexander Mitchell, W.S.	8 6 8	1	4	8 6 8	Livingston Learmonth of Parkhall.
XX.	1725	William Wardrope, Litster, Edinburgh.	5 11 1	1	4	5 11 1	J C. Wardrop, W.S., 82 Princes St., Edin.
XXI.	1726	David Christie, Wigmaker, Edinburgh.	8 6 8	1	4	8 6 8	Town Council.
XXII.	1734	Laurence Dundas, Professor of Humanity in the University of Edin.	About 44 0 0	2	4	About 22 0 0	Jas. Dundas of Dundas, Robt. Dundas of Arniston, and Dundas of Carronhall, by turns.
XXIII.	1764 1766	Rev. J. Penman, Min. of Bothkenner.	5 8 0	1	4	5 8 0	Gilmour of Craigmillar.
XXIV.	1768	Thos. Fraser, Clerk in the office of City Clerk, Edinburgh.	36 0 0	2	7	18 0 0	The Provost, Dean of Guild, and Treasurer of Edin.
XXV.	1778	Jas. Shortt, Optician, Edinburgh.	9 0 0	1	4	9 0 0	Earl of Morton.
XXVI.	1784	William Hume, Eastbarns, Dunbar.	16 0 0	2	4	8 0 0	Ministers of the Presbytery of Dunbar.
XXVII.	1784	Rev. Jas. Millar and Spouse.	24 0 0	1	4	24 0 0	Kirk-Session of Kippen.
XXVIII.	1809	Dr Donald Grant, London.	180 0 0	2	4	90 0 0	Earl of Seafield, and James Mackenzie, W.S., as Dr Grant's Trus.; whom failing, Sen. Acad.
XXIX.	1810	Rev. James Stewart.	About 30 0 0	3	3	About 10 0 0	Senatus Academicus.
XXX.	1821	Sir J. M'Pherson.	85 17 4	2	2	About 42 18 8	Senatus Academicus.
XXXI.	1837	James Menzies.	200 0 0	4	4	45 0 0	Sir R. Menzies, Bart., & Ministers of Dull. Weem, & Fortingall
XXXII.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk.	10 0 0	1	3	10 0 0	Principal, and Profs. of Latin, Greek, Mathematics, Logic & Metaphysics, and Moral Philosophy.
XXXIII.	1846	John Jamieson, Esq., Edinburgh.	About 26 0 0	1	4	About 26 0 0	Principal, & two Profs. of the University.
XXXIV.	1846	G. P. Bidder, C.E.	43 12 0	1	4	43 12 0	Senatus Academicus.
XXXV.	1852	Wm. Lennie, Esq.	48 0 0	4	4	12 0 0	Town Council.
XXXVI.	1853	John Bruce, Esq., Trinity Crescent, Edinburgh.	160 0 0	{ 1 { 4	4 4	40 0 0 30 0 0	Do.
XXXVII.	1858	M'Diarmid Trustees.	10 0 0	1	3	10 0 0	Senatus Academicus.
XXXVIII.	1860	Wm. Patrick, Esq., of Roughwood.	About 120 0 0	1	2	About £80 ,, £40	Principal and Professors in Arts.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XXXIX.	1858	Edin. Ayrshire Club.	£50 0 0	2	2	£25 0 0	Edin. Ayrshire Club.
XL.	1863	Peeblesshire Society.	20 0 0	1	4	20 0 0	Peeblesshire Society.
XLI.	1864	Ed. Caithness Asso.	10 0 0 Interest of	1	4	10 0 0 About	Ed. Caithness Asso.
XLII.	1864	A. H. Rhind of Sibster.	500 0 0	1	4	20 0 0	Edin. Caithness Asso.
XLIII.	1865	Mrs Margt. Tyndall Bruce, of Falkland.	165 0 0	3	3	35 0 0	Senatus.
				3	3	20 0 0	
XLIV.	1865	Horsliehill Scott.	76 17 6	2	2	38 8 9	Do.
XLV.	1867	Miss Hannah Harrison, of Lasswade.	34 13 8	1	2	34 13 8.	Do.
XLVI.	1867	Rev. John Spence.	About 200 0 0	5	2	1st Year 30 0 0	Governors of the Spence Bursary Trust.
						2nd Year 40 0 0	
				1	1	50 0 0	
XLVII.	1869	Edin. Border Counties Association.	50 0 0	1	4	30 0 0	Edinburgh Border Counties Assoc.
	1872			1	4	20 0 0	
XLVIII.	1869	Argyllshire, Bute, and Western Isles Asso.	12 0 0	1	4	About 12 0 0	Argyllshire Association.
XLIX.	1870	Stewart of Ardvorlich.	16 0 0	1	4	16 0 0	Proprietor of the Estate of Ardvorlich.
			About			About	
L.	1870	David Cowan.	35 0 0	1	2	30 0 0	Directors of Ayr Academy.
					1	20 0 0	
LI.	1871	J. Robertson Sibbald.	About 150 0 0	5	3	30 0 0	Tr. of Dr J. R. Sibbald.
LII.	1872	Angus Club.	25 0 0	1	4	25 0 0	Angus Club.
			About			About	
LIII.	1873	Earl of Zetland.	40 0 0	1	3	40 0 0	Trustees of Earl of Zetland.
LIV.	1873	The Grierson Trus.	104 0 0	4	4	20 0 0	Senatus Acad.
				1	4	26 0 0	
LV.	1874	Upper Ward of Lanarkshire.	20 0 0	2	4	20 0 0	Upper Ward Assoc.
LVI.	1874	Johnstone of Harthope.	18 15 0	1	4	18 15 0	Senatus Acad.
			About			About	
LVII.	1874	James Lambert.	40 0 0	1	4	40 0 0	Senatus Acad.
LVIII.	1875	Robert Marshall.	37 10 0	1	4	37 10 0	Senatus Acad.
LIX.	1876	J. Fothringham of Heathpool.	44 6 0	2	4	22 3 0	Senatus Acad.
			About				
LX.	1877	Earl of Zetland.	40 0 0	1	3	40 0 0	Trustees.
LXI.	1878	Edin. E. Lothian Asso.	20 0 0	1	3	20 0 0	Association.
LXII.	1878	Edin. University Endowment Asso.	120 0 0	6	3	20 0 0	Senatus Academicus.
LXIII.	1878	Jas. Gillan, Forres.	63 0 0	3		21 0 0	Mr Gillan's Trustees.
LXIV.	1878	Dr Andrew Thomson.	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.
			About			About	
LXV.	1880	Rev. John Patterson	20 0 0	1	2	20 0 0	Senatus Academicus.
LXVI.	1881	Thomas Carlyle.	About £160	8	4	20 0 0	Senatus Acad.
LXVII.	1883	Subscribers to Mackinnon Testimonial	£56 5 0	3	3	18 15 0	Senatus Acad.
LXVIII.	1882	James Whitelaw.	66 18 10	3	3	22 6 4	Senatus Acad.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
LXIX.	1883	William Renton, Edinburgh.	£19 9 6	1	1	£19 9 6	Profs. Chrystal, Tait, Crum Brown, and Nicholson.
LXX.	1883	Isabella Macdougall	About 120 4 3	4	3	About 30 0 0	Trustees.
LXXI.	1886	Rob. P. Newton of Castlandhill.	87 6 8	4	2	21 16 8	Senatus Academicus.
LXXII.	1886	Pet. C. Mann of Nairn and Durham.	80 0 0 About	3	3	26 13 4 About	Senatus Academicus.
LXXIII.	1886	Richd. Allan, Feuar, Kelso.	90 0 0	3	3	30 0 0	Trustees of R. Allan.
LXXIV.	1887	Mrs Kidd of Aigbarth, near Liverpool.	33 9 4 About	1	4	33 9 4 About	Senatus Academicus.
LXXV.	1887	Charles Jardine of Thorlieshope.	152 8 4 About	4	4	38 2 2 About	Senatus Academicus.
LXXVI.	1888	Mrs Harriet E. Morrison.	24 0 0 About	1	4	24 0 0 About	Senatus Academicus.
LXXVII.	1889	Daniel Maclaurin, London.	70 0 0 About	1	4	70 0 0	Town Council.
LXXVIII.	1889	James Simson, Edinburgh.	150 0 0	6	3	25 0 0	Presbytery of Edinburgh.
LXXIX.	1890	George Cousin.	28 0 0	1	3	28 0 0	Senatus Academicus.
LXXX.	1890	Rev. Thomas Maule.	80 0 0	4	6	20 0 0	Principal, and Profs. of Humanity and Greek.
LXXXI.	1891	Donald Fraser, M.D., London, and Association for the Better Endowment of the University.	50 0 0	1	1	50 0 0	Senatus Academicus.

CONDITIONS OF FOUNDATIONS AND NAMES OF BURSARS.

I. These *Heriot Bursaries* are for Students unconnected with the Hospital, entering upon a regular Curriculum in Arts or Science with a view to graduation. (For remodelled scheme, see CALENDAR, 1887-88, p. 498.) *Bursars*—1891, Thomas Hart, Charles S. Pennell, Donald B. Waters. 1892, David Nichol Smith, William D. Falconer, David William Inglis. 1893, R. M. Rowe, Alexander Brown M'Alpin, T. S. MacPherson, D. M. Aitken, J. W. Stewart, J. F. M. Doig.

Do., for Girls. These Bursaries are for Girls Matriculating for the first time at the University, and cannot be held along with any other Bursary or Scholarship. *Bursars*—1892, Sarah W. Davison, Elizabeth W. Garrett, Ethelwyn L. Lemon, Mary S. M. Bell, Margaret L. Thomson. 1893, Mary P. J. Cook, Helen Cameron, Catherine G. Lawson, Charlotte E. Tweedie, Rosa Stoltz, Isobel B. Mason, Agnes H. Pitcairn, Netta R. Duncan.

Do., High School University Bursaries. These are awarded by competitive examination among Scholars attending the High School, Edinburgh, and may be held at any University approved by the Governors. *Bursars*—1891, Donald G. Ross, Thomas S. Muir. 1892, William David Ross, R. W. MacKenna, W. S. Simpson, Æneas Rose, F. C. Matthew, Gavin Millar.

II. *Do.* Young men who, upon leaving Heriot's Hospital, are, after examination, declared hopeful scholars, and fit to follow any of the liberal professions, are entitled to a Bursary of £30 a-year for four years, with a view to attendance on the regular course in Arts, for the degree of M.A.

III. *A. Johnston Bursary.*—Each Bursar is entitled to hold this Bursary for four years, subject to the conditions that he shall pass such examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and pass the Examinations for M.A. appropriate to each year. No one is permitted to hold the Bursary along with any other Bursary in the University. The Bursar must attend the Classes in the Arts Curriculum.

IV. *Trotter Bursary.* This Bursary is held under the same conditions as No. III.

V. *Wight and M'Call Bursary.* This Bursary is held under the same conditions as No. III.

VI. and VII. *R. Johnstone Bursaries.*—By Ordinance No. 82, the holder of each of the four Robert Johnstone Bursaries is entitled to hold his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A. No person is allowed to hold any of these Bursaries along with any other Bursary in the University. *Bursar*—1892, Charles T. Magregor.

VIII. *Weir and Jenkins Bursary.*—For a Student in Arts, who must follow the Curriculum for the Degree of M.A.

IX. The *Dalgliesh* Bursar is entitled to hold the Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts in the University, and regularly pass the Examinations required of Students proceeding to the Degree of M.A. No person is allowed to hold the Bursary along with any other Bursary in the University.

X. *M'Morran Bursary.*—This Bursary is for a "Student of Philosophy" in the Arts Curriculum.

XI. *Penman* Bursar.—The Bursar must attend the Classes in the Arts Curriculum.

XII. Each *Ford* Bursar is entitled to hold his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Departmental Examinations required of Students proceeding to the Degree of M.A. No person is permitted to hold any of the Bursaries along with any other Bursary in the University.

XIII. The *Sir A. Ramsay* Bursar holds his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A.

No person is permitted to hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University.

XIV. The *Hepburn and Lightbody Bursary* was founded by Sir Colin Campbell, Lord Aberuchill, and Sir Patrick Aikenhead, as executors of Sir Patrick Hepburn of Blackcastle. It is for a Student of Philosophy who follows the Curriculum in Arts.

XV. The *Chrystie Bursary* is usually held for four years. The Bursar is taken bound to attend "the usual classes," and must produce yearly to the Faculty certificates from the respective Professors of his due attendance, and the diligent prosecution of his studies. Candidates are referred for information to the Clerk to the Faculty of Advocates, Advocates' Library.

XVI. The *Bryson* Bursars are first to enter the Humanity class: afterwards to pass through the rest of the classes in Arts until their Laureation; at which time, if judged by the ministers of the Presbytery of Dunbar fit for the study of Theology, they may continue for two years in Theology.

XVII. The *Pringle Bursary* was founded by James Pringle of Torwoodlee for a Bursar in Philosophy and Divinity, who must attend the classes in the Curriculum in Arts for M.A.

XVIII. The *Brown Bursaries* are payable to Bursars in the regular course of study in Arts for M.A.

XIX. The *Mitchell Bursary* is payable to a student during a regular course of four years in the Faculty of Arts for M.A., and during two years (if the Patron think fit) at the Divinity Classes.

XX. The *Wardrope Bursary* is for the maintenance and support of a Bursar of Philosophy in the University.

XXI. This *Christie Bursary* may be held by a Student during a regular course of four years in the Faculty of Arts for M.A.

XXII. *Dundas Bursaries.*—The Patrons are directed to prefer the Mortifier's near relations; failing such, those of the surname of Dundas; and failing such, any other persons at their discretion. By Ordinance No. 78 of the Universities' Commissioners, each person presented to either of the Dundas Bursaries is entitled to hold the same for four years as a Student of Arts, subject to the conditions that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and shall regularly pass the Examinations required for M.A. These Bursaries cannot be held with any other Bursary in the University.

XXIII. The *Penman Bursary* is payable to a "Student of Philosophy" for the period of four years in the Curriculum of Arts.

XXIV. The *Fraser Bursaries* are for maintaining two Students of the name of Fraser, till they finish their course and take the Degree in the Faculty of Arts, and for three years thereafter; they making their election whether to follow Divinity, Law, or Medicine. Two Classes at least must be attended each Winter Session. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XXV. The primary object of the *Shortt Mortification* is the establishment of a

Bursary for Mathematics. The Bursar must attend the Classes in the Curriculum in Arts. *Bursar*—Walter Forsyth.

XXVI. The conditions of the *Hume Mortification* correspond with those of Bryson's, No. XVI., and the presentations and payments are made as in that case.

XXVII. *Millar Bursary.*—To be held by a Student intended for the Ministry in the Church of Scotland, during his Curriculum in the Faculty of Arts.

XXVIII. The *Grant Mortification* is for Students of the University of Edinburgh, of the name of Grant. The holders may attend the Arts, Medical, Divinity, or Law Classes. Application for information may be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1890, James Taylor Grant, Lewis Grant.

XXIX. *Stewart Bursaries.*—Candidates must be in the *second* year of attendance in the Curriculum of Arts. Bursars must attend Logic and the other Classes usually attended in that year, with a view to the Degree in Arts. *Bursars*—1892, Edward E. Braine, John D. Comrie.

XXX. The *Macpherson Bursaries* are for the benefit of Students who are natives of the Highlands. They are bestowed on Students at the commencement of the *third* year of the regular course in Arts, with a view to the Degree of M.A., and are tenable for two years, during which the Bursars must attend Classes in the Curriculum of Arts. Candidates must have a knowledge of Gaelic. *Bursars*—1891, Hugh Gunn. 1892, John M. Macdonald. 1893, not awarded.

XXXI. *Menzies.*—These Bursaries, four in number, were founded in 1837, by James Menzies, Esq., Glasgow. They are of the annual value of £45 each, but vary in amount at discretion of the patrons, and tenable for four years, in any one of the Universities of St Andrews, Glasgow, or Edinburgh. Preference first to the relations of the Founder, next, to the name of Menzies; failing whom, to persons born on the estate of Sir Robert Menzies, Bart., within the parishes of Dull, Weem, and Fortingall; failing whom, any Student who shall be found best qualified may be appointed.

XXXII. The *Blair* Bursar must attend the Classes in the required order, and pass the Departmental Examinations necessary for the Degree of M.A. *Bursar*—1892, Steuart E. Pears.

XXXIII. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar may attend Classes in any of the Faculties. *Bursar*—1889, Andrew Rae.

XXXIV. Called the "*Jardine Bursary*," being founded by Mr Bidder, C.E., as a memorial of the munificence of Sir Henry Jardine to him, to which he owed the advantage of his education at the University of Edinburgh. Candidates must be natives of Scotland. The Bursar must attend the Classes, and pass the Departmental Examinations necessary for the Degree in Arts. *Bursar*—1892, John S. Begg.

XXXV. *Lennie Bursaries.*—Bursars must attend the Classes in the Arts

Curriculum. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XXXVI. *Bruce Bursaries.*—Prior to the commencement of each Winter Session, five Students are presented yearly, the most distinguished of the five receiving the £40 Bursary. The Bursars must be in regular attendance on the Classes necessary for the Degree of Master of Arts. Candidates announce their names at the Council Chambers to the City Clerk.

XXXVII. The *M'Diarmid Bursary* is a memorial of the late John M'Diarmid, Esq., Editor of the *Dumfries and Galloway Courier*. Candidates must be natives of the county of Dumfries or the stewartry of Kirkcudbright. The Bursar must attend the Classes and Examinations necessary for the Degree of Master of Arts. Applications regarding the Bursary to be made to "H. Gordon, Esq., Dumfries." *Bursars*—1892, William H. Sellar.

XXXVIII. The *Patrick Bursaries* are for the assistance of those who have completed a course of education at any of the public schools or academies in the county of Ayr, where a course of Classical Study is pursued, and who are in a condition to apply for admission into the University. Their value fluctuates, being, for the first, two-thirds of the dividend on £3000 Glasgow and South-Western Railway Stock; and for the second, the remaining third of said dividend. The Bursars must attend the Classes and Examinations necessary for the Degree in Arts, in the order required by the Faculty. *See* p. 197 of CALENDAR for 1865-66. *Bursars*—1892, 1st, N. G. Lindsay; 2nd, James M. L. Brown.

XXXIX. *Ayrshire Club Bursaries.*—Awarded after competitive examination to natives of Ayrshire requiring aid, and tenable during the Curriculum in Arts, on condition of regular attendance at the Classes, with a view to the Degree. Information will be afforded by the Secretary of the Club, Mr A. H. Cooper, W.S., 8 S. Charlotte Street. *Bursar*—1891, Wm. S. Nicholson; 1892, George H. Donald.

XL. *Peeblesshire Bursary.*—Open to Candidates of either sex who intend to pursue the Curriculum in Arts, Science or Medicine. Apply to the Secretary of the Society, Mr P. H. Cosens, W.S., 17 Duke Street, Edinburgh.

XLI. and XLII. *Caithness and Rhind Bursaries.* — Bursars must attend Classes in Arts Curriculum. Apply to Secretary of the Association.

XLIII. *Bruce of Grangehill and Falkland's Bursaries.*—Three of these Bursaries, of the annual value of £35, are awarded after competitive examination to Students of the *second* year in their course of study for a Degree in Arts; and three others, of the annual value of £20, to Students entering the *first* year of the Arts Curriculum. *Bursars*—First year, 1892, Frank Young. Second year, 1892, William J. Keith, D. B. Waters, for 1½ years. 1893—First year, Alfred G. Hogg; second year, W. D. Ross.

XLIV. *Horsliehill-Scott Bursaries.*—Annual value £35 to £41, under deduction of £6, 6s. for Examiners' fees from first year's payments. Open to Students in the *third* year of their course for a Degree in Arts, and tenable for two years, The examination is in Classics, Mathematics, and Logic and Metaphysics. Deed of Foundation, at p. 208 of CALENDAR for 1866-67. *Bursars*—1892, John A. Johnston; 1893, R. C. M. Bell.

XLV. The *Harrison Bursary* is of the annual value of £32, under deduction of £6, 6s. of Examiners' fees from first year's payments. Open to Students in the *third* year of their course in the Faculty of Arts, with a view to a degree, and is tenable for two years. It is to be awarded to the competitor who shall show the greatest proficiency in Classics, Mathematics, and Logic and Metaphysics. *See* Deed of Endowment, p. 231 of CALENDAR for 1867-68. *Bursar*—1893, Peter M'Gregor.

XLVI. *Spence Bursaries.*—By the regulations of the Governors, two Bursaries, each of the annual value of £30 for the first year and £40 for second year of tenure, are open only to Students who have studied in the University of Edinburgh, at the commencement of their second session in a three years' curriculum, or of their third session in a curriculum of four years. Examination in Latin, Greek, and Mathematics. Governors may award to any Bursar who has graduated or passed all the examinations for a Degree in Arts, a Bursary of £50 for one year, tenable in any of the other Faculties. See Scheme, p. 520 of CALENDAR 1889-90. Candidates apply to Mr Henry A. Patullo, Writer, Bank Street, Dundee, Factor to the Trust, for particulars.

XLVII. *Border Counties and Sir Walter Scott Bursaries.*—These Bursaries are open to competition by Scholars (women as well as men) who have attended any school in either of the Counties of Roxburgh, Berwick, Selkirk, or Borough of Berwick-on-Tweed, for two complete sessions immediately prior to the time of their examination for the Bursaries. The Bursars must attend the classes necessary for a Degree in Arts. Application to be made to Mr T. Usher, Sheriff Court House, Edinburgh. *Sir W. Scott Bursar*—1889, John Henderson. *Border Counties Bursar*—1891, John K. Graham.

XLVIII. *Argyllshire Bursary.*—Candidates must be natives of Argyllshire, Bute, or Western Islands. The holder must attend the classes necessary for a Degree in Arts. Application may be made to John Maclachlan, Esq., W.S., 43 Castle Street, Edinburgh.

XLIX. *Ardvorlich Bursary.*—Open to Students of Arts, natives of the parishes of Comrie, Balquhidder, Callander, or Killin, failing whom, to natives of Perthshire, and failing such, to the best qualified candidate. The holder must attend Arts or Science classes. Application to be made to the Clerk of Senatus. For remodelled Foundation, see CALENDAR 1887-88, p. 501; for original deed, see p. 275 of CALENDAR for 1870-71. *Bursar*—1890, J. F. Cameron.

L. *Cowan Bursary.*—Candidates must be about to enter the Curriculum in Arts. Annual value for first two years £30, and £20 for third year, to be held alternately at Edinburgh and Glasgow Universities. Information will be afforded by J. G. M'Skimming, Esq., Ayr.

LI. *Sibbald Bursaries.*—The Bursaries are available to Students in the Faculties of Arts, Medicine, Law, or Divinity, and are open to Students entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship;* but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. *See* CALENDAR for 1888-89, pp. 171 and 177.

Application to be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1890, Hugh M'Calman, George Hart; 1891, Chas. P. Edgar, James Y. Simpson; 1892, William Eggeling.

LII. *The Angus Club Bursary.*—Open to Forfarshire students entering the University for the first time. Application should be made to the Secretary of the Club, Mr T. S. M'Laren, W.S., 11 Hill Street.

LIII. *Orkney and Zetland Bursary.*—Open to first year Students (male or female), natives, or children of parents who are natives of the County of Orkney and Zetland. It is tenable for three years. The Bursar must attend the Classes in the Curriculum in Arts, with a view to a Degree. Applications to be sent to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh. The Deed of Foundation will be found in CALENDAR for 1873-74, p. 329.

LIV. *Grierson Bursaries.*—Four Bursaries of £20 each, and one of £26, awarded annually in November, under the patronage of the Senatus. They are restricted in the first place to natives of either of the parishes of Crawford or Leadhills, who must pass an examination, satisfactory to the Senatus, in Elementary Latin, English, and Arithmetic. In the event of more than one preferential Candidate, the examination is competitive among such candidates. If no preferential Candidates, the Bursaries are thrown open for competition to all Students then intending to enrol in the University for the First Session of the Curriculum in Arts, the subjects of examination being those prescribed for Bursars of the First Year. *See* Trust Disposition of Founder at p. 335 of CALENDAR for 1873-74, and p. 368 of the CALENDAR for 1877-78. *Bursars*—1890, E. M. Beilby, James Paterson; 1891, Robert L. Ross, Peter M'Gregor, Arthur G. Edie; 1893, William A. Curtis, James Lornie.

LV. *Lanarkshire* (Upper Ward of) *Bursaries.* — Bursars must attend the Classes in the Arts Curriculum. Mr R. Brown, Secretary, 28 St Andrew Square. *Bursar*—1888, J. D. P. M'Letchie.

LVI. *Johnstone of Harthope Bursary.* Natives of Moffat, Peebles, and Students of the name of Alexander or Johnstone preferred, if applications (with proof of birth) be made to Secretary of Senatus before 1st of October. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *See* Deed of Foundation, at p. 350 of CALENDAR for 1875-76. *Bursar*—Archibald Alexander.

LVII. *Lambert Bursary.*—This Bursary cannot be instituted until after the death of an annuitant. *See* Deed of Foundation, at p. 342 of CALENDAR for 1875-76.

LVIII. *Marshall Bursary.*—Restricted in the first place to relatives of Founder, next to Students of the name of Marshall, and natives of West Lothian. *See* Deed of Foundation, at p. 347 of CALENDAR for 1876-77. *Bursar*—1892, John Chalmers.

LIX. *Fothringham and Forrest Bursaries.* Relatives or namesakes of the Founder, then such as are of the name of Forrest, to be preferred. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *Bursar*—1893, Charles Macfie Campbell.

LX. *Earl of Zetland's Bursaries.*—These Bursaries are open to First Year Students in the Faculty of Arts, who are natives of the Islands or County of

Orkney and Zetland, or children of parents, one or both of whom shall have been born in or connected for a long period of years with the said Islands or County. For Deed of Foundation of these Bursaries, *see* p. 373 of CALENDAR for 1877-78. Application to be made to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh.

LXI. *Edinburgh East Lothian Association's Bursary.*—The Bursary may be competed for by any lad under the age of 18, who has been educated at any school in East Lothian, or who, having passed through all the standards or their equivalents at such schools, shall have afterwards attended for not more than three sessions any secondary school within or without the county. Application may be made to J. Purves, S.S.C., 65 Frederick Street.

LXII. *Edinburgh University Endowment Association's Bursaries* are open to Students entering the Faculty of Arts for the first time, are tenable for three years. Bursars must proceed through the Curriculum in Arts, and pass the Examinations for the Degree of M.A. Lapsed Bursaries may be awarded for one year to Students of the first or any year, whose merits have been attested in the usual Bursary Examination of their year. Cannot be held with any other Bursary in any Scottish University. *See* Minute of the Endowment Association, p. 375 of CALENDAR for 1878-79. *Bursars*—1891, William E. Hutchison, James Masson, John Thomson; 1892, Arthur H. Firth, Marshall N. G. Gray, C. C. Watson; 1893, Otto Rothfeld, Sidney G. Campbell, James G. S. Jamieson.

LXIII. *Gillan Bursaries.*—Founded in 1878 by James Gillan, draper, Forres. These Bursaries are for the support at the University, and at the New College, Edinburgh, of two young men connected with the parish of Forres, and one connected with Dyke, who have declared their intention to study for the ministry of the Free Church of Scotland. For particulars apply to Messrs R. & R. Urquhart, Solicitors, Forres.

LXIV. *Thomson Bursaries.*—Candidates of the name of Thomson or Traquair, or natives of town or county of Dumfries or city of Edinburgh, preferred. *See* Deed of Foundation, p. 367 of CALENDAR, 1877-78, and Scheme of Allocation, p. 346 of CALENDAR, 1879-80. Applications to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street. *Bursars*—1890, G. Scott Dalgleish. 1891, F. Guthrie Smith; 1892, Robert Gray; 1893, Allan W. C. Menzies.

LXV. *Patterson Bursary, in Anglo-Saxon, Grammar, and Literature.*—Open to Students in the second, third, or fourth year of their Matriculation who have attended the class of English Literature in the University. The Examination will include Anglo-Saxon, Grammar, Translations of passages of Anglo-Saxon prose and verse, and the History of Anglo-Saxon Literature. *See* Deed of Foundation at p. 379 of CALENDAR for 1880-81.

LXVI. *John Welsh Bursaries*, founded by Thomas Carlyle in 1881, in memory of his Father-in-law, to whom the estate of Craigenputtock in Dumfriesshire, bequeathed by Mr Carlyle to the University of Edinburgh, formerly belonged. The Bursaries are paid from the rents of that estate, and are eight in number, of the value of about £20 each, tenable for four years. They are awarded, after

competition, to Students entering the University, who have not studied in any other University. Four are to be given to the competitors most proficient in Mathematics, and four to those most proficient in Classics. They are not to be held with any other Bursary. *See* Deed of Foundation at p. 379 of CALENDAR for 1881-82. *Bursars*—(*Classical*)—1890, Walter R. Henderson, W. W. M'Kechnie; 1891, George A. Davidson, Robert White. (*Mathematical*)—1890, J. Hossell Henderson, A. G. Burgess; 1891, Francis Dewar, Frederick A. Barnardo; 1892, Lapsed Bursary, W. C. Morton for 3 years.

LXVII. *Mackinnon Bursaries.*—Three Bursaries about £18, 15s., tenable for three years, to encourage the study of the Mechanical Sciences. Each Bursary is open for competition to Students entering their First Session in the Faculty of Arts. Candidates must be natives of the counties of Argyll, Bute and Arran, Inverness, Ross or Sutherland, and must be able to speak the Gaelic language. The Examination is held at the annual competition for Bursaries at the beginning of each Session, with an additional examination by the Professor of Celtic; at least 10 per cent. of the total marks attainable being assigned to Gaelic. Each Bursar is bound to attend at least two classes in the Faculty of Arts during his tenure, and among these six classes, at least one class of Mathematics, one of Natural Philosophy, and the class of Engineering. The Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding an annual income of £50 or upwards, and is tenable only during good behaviour and proficiency. *Bursars*—1891, Norman C. MacDonald; 1892, George MacLennan, Alex. M. Murchison.

LXVIII. *Whitelaw Bursaries.*—In memory of James Whitelaw, Watchmaker. Three Bursaries, about £23 each, tenable for three years, open to Students about to enter, or who follow the Curriculum in Arts. Cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding £50 annually, or upwards. Examination in October annually. *Bursars*—1891, Jas. Y. Simpson, John Macaskill, Donald Macdonald.

LXIX. The *Renton Bursary*, founded by the Trustees of the late William Renton, 20 Royal Terrace, Edinburgh, is for a Student pursuing his studies in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of them as he may consider proper, and who may require assistance. The Bursary is tenable for one year, and cannot be held by any one under the age of sixteen or above twenty-one. It is filled up in November each year. The Examination is conducted each year by the Assistant to one of the Professors of Natural Philosophy, Chemistry, and Mathematics in turn, and in the above-named order. *Bursar*—1893, Thomas W. Wilson, M.A.

LXX. The *Macdougall Bursaries* are open to Students of Edinburgh, Glasgow, and St Andrews Universities. Students attending the Gaelic Class to be preferred. The Bursaries cannot be held with any Bursary or appointment yielding £50 per annum. *See* Deed of Foundation at p. 435 of CALENDAR 1885-86. Application may be made to Mr W. C. Young, solicitor, Perth.

LXXI. *Newton Bursaries.*—Two are awarded annually, one to the most distinguished Student in the Junior Class of Natural Philosophy, and one in the

Senior (Second) Class of Mathematics. The Bursaries are tenable for two years, and the Bursars must continue their studies in the higher branches of the subjects of their Bursaries, and at the end of the second year of tenure, either take Honours in Mathematics and Natural Philosophy, pass the 2nd B.Sc. Examination, or give other evidence of advanced study in Mathematics or Natural Philosophy. These Bursaries are not to be held with other Scholarships or Bursaries. *See* Deed of Foundation, p. 460 of CALENDAR, 1886-87. *Bursars* (*Math.*)—1893, William Jeffrey; 1894, J. C. Leighton; (*Nat. Phil.*)—1893, A .C. Smith; 1894, A. M. Gordon.

LXXII. *Mann Bursaries.*—(1.) Candidates must be children of residents in the town of Nairn, *i.e.*, one or both parents must have resided within the municipal boundaries for at least twelve months at any period prior to the competition. (2.) Applications must be lodged with the Clerk of Senatus at least three weeks before the Annual Bursary Examination of the University, along with evidence of compliance with Rule I. (3.) One will be awarded annually to the candidate, matriculating for the first time in this University, who obtains the highest marks at the Entrance Bursary Examination in English, Latin, Greek, and Mathematics, provided the Examiners be satisfied with the standard he has attained. (4.) Each will be tenable for three years, value about £25 per annum. (5.) Failing candidates of the first year, the vacant Bursary will be awarded as a second year Bursary to the candidate who obtains the highest marks in the Bursary Examination for the second year; and, failing candidates of the first and second years, it will similarly be awarded as a third year Bursary. When awarded under this Rule it is tenable for one year only. (6.) Failing candidates qualified under Rule III. or Rule V., the Senatus may continue one of the Bursaries to its holder for a fourth year, provided he propose to continue his studies for a fourth year in some special subject. (7.) Each Bursar must be *bona fide* engaged in studying for a Degree in Arts or in Science, and must produce evidence at the end of each Winter Session that he has attended at least two classes in the Faculty of Arts, or in a Department of Science, and has made reasonable progress in his studies. (8.) Any breach of these regulations, or conduct unworthy of a scholar and a gentleman, will be punished by forfeiture of the Bursary. *See* Deed of Foundation, p. 497 of CALENDAR 1887-88, and Regulations at p. 544 of CALENDAR for 1890-91. *Bursars*—1892, A. M. Mackay, for one year; 1893, John Matheson.

LXXIII. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Medicine, or Law, in the University of Edinburgh, or to Students attending the classes in said University necessary for Degrees in Science; and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

LXXIV. *James Fairbairn Bursary*, founded by Mrs Kidd of Palmyra, Aigbarth, near Liverpool, in memory of James Fairbairn, late Governor of Heriot's Hospital, is open to competition to first year Students, and is tenable for four years. The Bursar is required to attend the Classes necessary for Gradua-

tion in Arts, and to take the Degree at the end of the Course. The Bursary cannot be held along with any other Bursary or Scholarship. *See* Deed of Foundation, p. 501 of CALENDAR, 1887-88. 1892, D. A. Macnaughton, for year and a half; 1893, Peter Thomsen.

LXXV. *Jardine of Thorlieshope Bursaries.*—Natives of the rural districts of Roxburghshire and Dumfriesshire (villages and towns of the population of 2000 and upwards being excluded), who have attended the Public or Board Schools in said counties, to be preferred. In the event of there being no first year Candidates, the Bursaries will be thrown open to Candidates of the second, third, or fourth year in succession, but will be tenable for one year only. The Bursars are required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the Course. The Bursaries cannot be held along with any other Bursary or Scholarship. See Deed of Foundation, p. 497 of CALENDAR, 1887-88. *Bursars*—1890, Richard C. Davidson; 1891, William M'Clymont; 1892, W. W. Smith; 1893, Richard Bell.

LXXVI. *MacKenzie* (*Stornoway*) *Bursary.* — Candidates of the name of MacKenzie have a preference. The Examination is in Latin, Greek, Mathematics, and English, and the Bursary will be awarded to the Candidate who stands highest, provided he has reached the standard of the Preliminary Examination in at least two subjects. Failing a preferential Candidate, the Bursary will be thrown open to competition as a first year Bursary in Arts. The Bursar is required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the course. For Regulations, &c., *see* p. 521 of CALENDAR for 1889-90. This Bursary will not be instituted until the death of a liferenter.

LXXVII. This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's name of Maclaurin (or in Gaelic orthography "Maclalhrin"). It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

LXXVIII. Six Bursaries, each of the annual value of £25, and tenable for three years in the Faculty of Arts. They are open to Students who, having passed the Preliminary Examination, are entering on the first year of the Course in Arts, and are studying for the Ministry of the Church of Scotland. For conditions of tenure and subjects of examination, apply to the Rev. Dr Langwill, Currie, or to Rev. John Patrick, B.D., Greenside, Edinburgh. *Bursars*—1893, W. A. Curtis, John Ewart, W. A. Dunnett.

LXXIX. *Bailie Cousin's Bursary* is open for competition to Students entering the Faculty of Arts on a regular course for the Degree of M.A. The holder must regularly pass the departmental examinations appropriate to each year. The Bursary cannot be held along with any Fellowship, Scholarship, or Bursary of any Scottish University, or with any situation or appointment yielding an annual income of £30 or upwards. For Deed of Foundation *see* CALENDAR 1891-92, page 536. *Bursar*—1891, A. Croom Paterson.

LXXX. *Maule Bursaries.*—These Bursaries are for the education of poor and deserving Students. They may be held by Students prosecuting their studies

in any of the Faculties. The Examination is in Latin, Greek, Mathematics, and English for preferential Candidates. *See* Excerpt from Trust Deed, p. 543 of CALENDAR for 1891-92, and Deed of Foundation, in CALENDAR for 1894-95.

LXXXI. *The Donald Fraser Bursary* is awarded for high merit in the University Class of Natural Philosophy, combined with proficiency in Laboratory Work. The Bursar is required to give assistance in the University Physical Laboratory, and to engage in research there. The Bursary cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. *See* Deed of Foundation, p. 545 of CALENDAR for 1891-92. 1894.—*Bursar*, A. Alexander.

II.—PRIZES.[1]

I.—THE LORD RECTOR'S PRIZE.

The Lord Rectors since 1879 have, during their respective tenures of office, offered a Prize of Twenty-five Guineas annually, for the best Essay on a Historical Subject. The following are the names of the prizemen:—

1889. Stewart Alan Robertson.
1890. James Wallace.
1891. John Davidson, M.A.
1892. *Not awarded.*
1893. *William L. Matheson.*
Proxime accessit, R. Fleming Johnston.

II.—EDINBURGH UNIVERSITY CLUB (OF LONDON) TRIENNIAL PRIZE.

A Prize of Twenty Guineas, open triennially, for competition in any of the Faculties by Graduates of not more than two years' standing, is offered by the Edinburgh University Club of London, for the best Essay on a subject prescribed by the Deans of the Faculties in rotation, subject to the approval of the Senatus. The Prize will be open in 1895.

1890. No award.
1891. *John Davidson, M.A.*

III.—BRUCE OF GRANGEHILL AND FALKLAND'S PRIZE IN THE CLASSES OF LOGIC AND METAPHYSICS.

This Prize of £20 (with a supplementary Prize of £10 for the Junior Division of the Class) is awarded to the most distinguished student in this class, "on such conditions and competition as the Professor may direct, and on his decision," for excellence in the study of Logic and Metaphysics. It was founded in 1865, by Mrs Tyndall Bruce of Grange-

[1] The names of University Prizemen are retained in the CALENDAR for five years.

hill and Falkland, in commemoration of John Bruce, Professor of Logic and Metaphysics in the University, 1774-1786.

1889. Charles M. Douglas, M.A.
1890. James Mitchell.
1891. Henry Barker.
1892. Hugh R. Mackintosh, M.A.
1893. H. P. Macmillan, M.A.
1894. J. B. Baillie, M.A.

IV.—GRAY PRIZES.

The Gray Prize Essay Fund was instituted in 1851, in terms of the Will of Simon Gray, Esq., of Mornington Crescent, London.

The Gray Trustees offer annually for competition, two prizes of £20 for the first, and £10 for the second best Essay on a subject to be intimated annually under Prizes open for the year.

For particulars apply to the Rev. W. Ritchie, D.D., Duns, Secretary to the Trustees.

The awards for the Session 1892-93 were as follows:—

1st Prize, Charles Menmuir, Arbroath.
2nd Prize, John Holm, Kirkcaldy.
3rd Prize, Charles S. Pennell, Edinburgh.

V.—DR MUIR'S PRIZES IN SANSKRIT AND COMPARATIVE PHILOLOGY.

In accordance with the intentions of the late Dr John Muir, and with the concurrence of Sir William Muir, the sum of £100, offered by Dr Muir in 1872 as a prize to the first candidate who should take the degree of Doctor of Science in Sanskrit and Comparative Philology within five years,—afterwards renewed, on the same terms, for another period of five years,—has now, together with the interest, been appropriated by the Senatus for Sanskrit and Comparative Philology Class Prizes. It is left to the discretion of the Professor to offer Class Prizes, not exceeding £25 in the aggregate, for competition.

1891. John Maclennan, M.A.
,, William Menzies.
,, John M. Tait.
1892. No award.
1893. Charles S. Edgar.
,, William Eggeling.
1894. Senior Class, 1st Prize, William Eggeling.
1894. Senior Class, 2nd Prize, Charles S. Edgar.
,, Junior Class, 1st Prize, William D. Proudfoot.
,, Junior Class, 2nd Prize, Donald Lamont.

VI.—SCOTT AND DUNBAR PRIZE.

This Prize, of the value of about £20, was founded in 1872 by the Rev. Hew Scott, D.D., of Anstruther Wester, for encouraging the study of the Greek Language in the University of Edinburgh. It is

awarded annually to "the most deserving and learned student in the Greek Classes," after such Examination as may be directed by the Principal and the Professors of Divinity, Greek, and Humanity. *See* Deed of Foundation at p. 332 of CALENDAR, 1873-74.

1888. { J. A. Norrie / James Watt } equal.
1889. Patrick Duncan.
1891. R. P. Davidson.
1894. *James M. Moore.*

VII.—THE COUSIN PRIZE.

This Prize, founded in connection with the Class of Fine Art by the late David Cousin, Esq., is of the annual value of about £14, 14s. 6d., and is awarded at the close of each session for proficiency in Class Essays set from time to time by the Professor. *See* Excerpt from Mr Cousin's will in CALENDAR, 1880-81, p. 380.

1891. J. Malcolm Tait.
1892. W. M. Souter, M.A.
1893. Henry Barker.
1894. *George Hart* / ,, *J. Wilson Lowthian* } equal.

VIII.—KELLAND MEMORIAL PRIZE.

The Committee for promoting a Memorial to the late Professor Kelland has handed over to the University the sum of £147, 10s., for the purpose of founding a Prize to be called the "Kelland Memorial Prize," to be awarded annually to the most distinguished Student in Pure Geometry in the Junior Mathematics Class.

1893. *J. C. Leighton.*

III.—SCHOLARSHIPS.[1]

I.—PITT CLUB CLASSICAL SCHOLARSHIP.

The Pitt Club Scholarship of the annual value of £57, 10s. 4d., tenable for four years. By ordinance No. 17 of the Scottish Universities' Commissioners of 1858 it is open for competition to all who have passed regularly through the Course in Arts in the University, and have been admitted to the Degree of M.A. in Edinburgh, at any time within four years before the competition takes place. The subjects embraced in the examination are CLASSICS and ENGLISH LITERATURE. The next competition may take place in April 1897.

1892. *Thomas Ross Mills, M.A.*

II.—MACKENZIE CLASSICAL SCHOLARSHIP.

This Scholarship was founded in 1862, by James Mackenzie, Esq., W.S., and is of the annual value of £121, 10s., tenable for four years. By ordinance No. 90 of the Scottish Universities' Commis-

[1] The names of University Scholars are retained in the CALENDAR for five years.

sioners of 1858, it is open for competition to all Graduates in Arts in the University of Edinburgh of not more than three years' standing at the time of the competition. Candidates are examined in CLASSICAL LITERATURE and in ENGLISH LITERATURE, and the Examination is conducted by three or more Examiners selected by the Senatus from their own body. It cannot be held along with any other Scholarship, Fellowship, or Bursary, of any Scottish University. The Examinations include—1. Translations from Latin and Greek authors; 2. Composition in Latin and Greek Prose; 3. Latin and Greek Literature, and History; 4. English Essay-Writing; 5. History of English Literature. The next competition may take place in April 1897.

1892. *William G. Wedderspoon, M.A.*

III.—SIR DAVID BAXTER MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £61, 15s. 10d., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171) it is awarded for proficiency in the department of Mathematics, particularly in that branch of it which includes mechanical and physical science. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mathematics. The next competition may take place in April 1895.

1890. Charles E. Grange, M.A.

IV.—SIR DAVID BAXTER PHILOSOPHICAL SCHOLARSHIP.

This Scholarship, also founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £61, 15s. 10d., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171), it is awarded for proficiency in the Department of Mental Philosophy. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mental Philosophy. The subjects of examination are Logic, Metaphysics, and Moral Philosophy. The next competition may take place in April 1895.

1890. *Duncan MacKenzie, M.A.*

V.-VII.—JOHN EDWARD BAXTER SCHOLARSHIPS.

These Scholarships were founded in 1876, and are three in number, each of the annual value of about £91, 18s. 6d., and tenable for three

years. One is in the Department of Classical Literature, another in Mental Philosophy, and the third in Mathematics and Natural Philosophy. They are open for competition to all Masters of Arts of the University of not more than three years' standing at the time of the competition. The Scholarships in *Mathematics* and in *Classics* may be competed for in April 1896. *See* Deed of Foundation at p. 361 of CALENDAR for 1877-78.

1889. Patrick Duncan, M.A. (Cl.) | 1892. James Watt, M.A. (Cl.)
1890. W. G. Smith, M.A. (Ph.) | 1893. *A. B. Macaulay, M.A.* (Ph.)
1891. { W. E. Philip, M.A. } equal
{ J. I. Craig, M.A. (Ma.) }

VIII.—DRUMMOND MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Miss Elizabeth Drummond, in memory of her brother, Captain Drummond, R.E., Under Secretary for Ireland. It is of the annual value of £105, 12s. 6d., and is tenable for three years. By the Deed of Foundation (given at p. 198 of CALENDAR for 1865-66), it is open to Graduates in Arts of not more than three years' standing, who have graduated with Honours in the Department of Mathematics. It cannot be held with any other Bursary or Scholarship, and the holder is recommended to travel for the purpose of inspecting, in this and other countries, remarkable engineering and architectural structures, to extend his knowledge of the practical application of Mathematical principles; and, if required by the Senatus Academicus, to deliver reports on the principal structures examined by him, and the Mathematical principles exemplified thereby; which reports the Senatus may cause to be publicly read in the University or elsewhere in Edinburgh. The next competition may take place in April 1897.

1890. James Goodwillie, M.A. | 1893. *James Mitchell, M.A., B.Sc.*

IX.—BRUCE OF GRANGEHILL AND FALKLAND'S CLASSICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for three years, during two of which the studies of the Scholar must be prosecuted in the University of Edinburgh, but in the third year they may be prosecuted in an English or Foreign University. By the terms of the Deed of Foundation (given at p. 205 of the CALENDAR for 1866-67), this and the two following Scholarships held by Students who have passed their Examinations for the Degree of Master of Arts with Honours, have hitherto been conferred upon the most distinguished in that one of the Honours Departments which is appropriated for each year. The Scholarship cannot be conferred upon any one whose age exceeds twenty-three years, and it cannot be held with any other Scholarship or Fellowship of a Scottish

University, or with any situation yielding an income of £100 per annum. In the event of the Scholarship becoming vacant during the period of tenure, through resignation or otherwise, of the Scholar, then the sum falling in shall be bestowed by the Senatus for the remaining period of tenure on a Student attending the Divinity Classes who shall be reported by the Faculty of Theology to be a meritorious Student and deserving of the Scholarship. The next award may be made in April 1895.

1891. W. G. Wedderspoon, M.A. | 1894. No award.

X.—BRUCE OF GRANGEHILL AND FALKLAND'S SCHOLARSHIP IN MENTAL PHILOSOPHY.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Logic and Psychology, Metaphysics, Moral Philosophy, and History of Philosophy. The next award will be made in April 1895.

1889. W. G. Smith, M.A. | 1892. *Hugh R. Mackintosh, M.A.*

XI.—BRUCE OF GRANGEHILL AND FALKLAND'S MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Mathematics and Natural Philosophy. The next award may be made in April 1896.

1890. Charles Tweedie, M.A. | 1893. *Neil Macmichael, M.A.*

XII.-XIII.—GRAY SCHOLARSHIPS.

(*In abeyance.*)

These two Scholarships, founded by Mr Gray of Baad Park in 1864, are each of the annual value of £43, 7s. 6d., and tenable for a period not exceeding two years. All candidates must pass the Examination for the Degree of Master of Arts. In making appointments the Senatus are directed to prefer in the first place candidates of the name of Gray ; and secondly, such as have been born in the parishes of Midcalder or Kirknewton. Failing well qualified Candidates, who fulfil these conditions, the Scholarships may be awarded to distinguished candidates for the Degree in Arts in the Honours departments.

The scholars must proceed to study in one of the Faculties of Divinity, Law, or Medicine.

1890. Arthur Herbert Gray, M.A.
1891. W. E. Philip, M.A.
1892. Robert G. M'Kerron.
1893. Alexander H. Gray, M.A., Preferential Candidate.
1894. *Robert Gray,* (Preferential Candidate.)

XIV.—GILCHRIST SCHOLARSHIPS.

These Scholarships were founded in 1865 by the Trustees of the late Dr Gilchrist; they are three in number, each of the annual value of £100, and are open to natives of India who have passed competitive examinations at the Presidential Colleges of India. They are attached to the Medical, Law, and Literary Classes in the University.

XV.-XVII.—MISSES BAXTER OF BALGAVIE'S SCHOLARSHIPS.

These Scholarships were instituted in 1868 and 1878 by Miss Mary Baxter of Balgavie. They are three in number, two of the annual value of £40, the third of £20. They are in the gift of the Directors of the High School of Dundee, and are open for competition to all pupils who shall have finished their course at the time, or within one year previously, at that School. The examination is held in Dundee by examiners appointed by the Directors, and the subjects are Geometry, Algebra, Trigonometry, and Mechanical Drawing. The Scholarships are tenable for one year certain, and for a second if a favourable certificate is sent to the Directors by the Senatus Academicus. The patrons may extend the tenure of these Scholarships for a further period of one year, provided the holder shall have previously passed the First Examination for the Degree of Bachelor of Science in the Department of Engineering in this University. The Classes to be attended in the first year are Mathematics, Natural Philosophy, and Engineering; in the second year Chemistry, Engineering, and the second course of Natural Philosophy, and for the third year any two classes to be selected by the student, and approved by the Senatus.

These Scholarships are not to be held with any other Scholarship, Fellowship, or appointment yielding £50 per annum. *See* Deeds of Foundation, at page 255 of the CALENDAR for 1869-70, at p. 372 of CALENDAR for 1878-79, and at p. 377 of the CALENDAR for 1881-82.

XVIII.-XIX.—FETTES EXHIBITIONS.

These Exhibitions are each of the annual value of £60, and are tenable for four years. They are open annually for competition, one among the Foundationers alone, and the other among the Foundationers and such other pupils as have attended Fettes College regularly for not less than five years.

XX.-XXI.—RHIND SCHOLARSHIPS.

These Scholarships were, in accordance with the will of the late A. H. Rhind, Esq., of Sibster, founded by his trustees on the reversion of his estate. They are two in number, one in the Department of

Classical Literature, the other in that of Philosophy, are each of the annual value of £98, 10s., are tenable for not less than two years, or more than three years, and are open to Undergraduates and to Graduates of not more than three years' standing at the time of the competition. Competitors must have attended classes in this University for not less than three *winter* sessions or their equivalent, attendance being defined to mean that the competitors must present Certificates of having attended at least four classes during the period aforesaid, and of having duly performed the work of the classes. The successful Candidates may be required to undertake duties connected with the teaching of the University, or otherwise assist in some department of its operations. *See* Deed of Foundation at p. 323 of CALENDAR for 1874-75. The next competition for the Classical Scholarship may take place in April 1895, and the next competition for the Philosophical Scholarship may take place in April 1896.

1891. Lapsed Scholarship in Philosophy, John Davidson.
1891. *J. Lewis M'Intyre, M.A.* (Ph.)
1891. *R. P. Davidson, M.A.* (Cl.)
1893. Lapsed Phil. Scholarship, *W. F. Trotter, M.A.*

XXII.—SCHOLARSHIPS IN MUSIC.

By the will of Signor Theophile Bucher, who died in 1871, his trustees were enjoined (on the death of a liferentrix, who died in March 1889) to pay over the residue of his estate, amounting to about £4000, to the Senatus and Curators of the University for the purpose of founding one or more Scholarships of music to be held by any young men born in Scotland, who may shew a natural talent for music and wish to make it their profession, for the purpose of improving their education, and enabling them to prosecute the study of the science and art of music in Italy, Germany, and France.

XXIII.—THE CHARLES MACLAREN SCHOLARSHIP.

This Scholarship, founded in 1871 by the Trustees of Mrs Maclaren, in memory of Charles Maclaren, Esq., the eminent geologist, is of the annual value of £95, 19s. 2d., and is tenable for three years. It is for the encouragement of the study of Mathematics and Natural Philosophy, and is open to all graduates in Arts of not more than three years' standing at the time of the Competition (and under 30 years of age) who shall have taken honours in Mathematics. The successful competitors are to spend a few months in travelling and in examining remarkable Engineering and Architectural Structures, and to report to the Senatus, which report the Senatus may cause to be publicly read in the University. The Deed of Foundation is given at p. 324 of CALENDAR for 1873-74. The next competition may be in April 1895.

1890. *Jas. F. M'Kean, M.A.*

XXIV.—NEIL ARNOTT SCHOLARSHIP FOR EXPERIMENTAL PHYSICS.

This Scholarship, value about £38, 10s., was founded in 1874, and is awarded annually to the most distinguished Student in the Physical Laboratory of the University.

The recipient must, during the ensuing Summer and Winter Sessions, assist the Professor of Natural Philosophy in the Laboratory. Failing a Student deemed by the Professor worthy of the Scholarship, it may be given to the Candidate for a Degree in Arts who has undergone the Examination in Natural Philosophy with most distinction. *See* Deed of Foundation, at p. 340 of CALENDAR for 1875-76.

1890. P. F. Gillies.
1891. T. C. Baillie.
1892. H. Walker.
1893. J. A. Macdonald.
1894. *A. D. Russell.*

XXV.-XXVII.—FERGUSON SCHOLARSHIPS.

The examination of Candidates for Three of these Scholarships, each of the annual value of £80, and tenable for three years, will be held in Glasgow, on Tuesday, 25th September 1894, and following day. One of the Scholarships to be awarded for the greatest proficiency in Classics; one for the greatest proficiency in Mathematics, including Natural Philosophy; and one for the greatest proficiency in Mental Philosophy, including Logic, Metaphysics, and Ethics.

The Competition will be open to all persons who have passed the last of the Examinations required for the degree of Master of Arts in one of the Universities of Scotland (whether taking the degree at the same time or not) within two years immediately preceding, and who have not already gained one of these Scholarships or competed more than once previously for any of them.

For further information apply at the Office of The Ferguson Bequest Fund, 94 Bath Street, Glasgow.

The following Students of the University of Edinburgh have obtained Ferguson Scholarships during the last five years:—

1890. Patrick Duncan, M.A., Cl.
,, Charles Mackinnon Douglas, M.A., (Phil.)
1891. James Holm, of Glas. and Edin. Universities, (Math.)
1891. Henry Barker, M.A., (Phil.)
1892. Wm. Edward Philip, M.A., (Math.)
,, Hugh Ross Mackintosh, M.A., (Phil.) one half.

HOLDERS, 1893.

Alexander Souter, M.A., of Aberdeen University, Classical.
Horatio Scott Carslaw, M.A., of Glasgow University, Mathematical.
The Philosophical Scholarship was not awarded.

XXVIII.-XXXVII. VANS DUNLOP SCHOLARSHIPS.

TEN VANS DUNLOP SCHOLARSHIPS, each of the annual value of £100, and tenable for three years, are, by the Deed of Foundation, appropriated to the following subjects:—1. English Literature and Poetry; 2. Classical Learning—Latin and Greek; 3. Commercial and Political Economy and Mercantile Law; 4. Logic and Metaphysics; 5. Natural Philosophy; 6. Mathematics; 7. Hebrew and Oriental (Semitic) Languages; 8. History; 9. Moral Philosophy; 10. Sanskrit. In terms of the Trust-Disposition (which is given at p. 380 of CALENDAR for 1880-81), the Scholarships are given only for "distinguished proficiency" in the various subjects of competition, as determined by the Examiners and the Senatus Academicus.

The following are the General Regulations for the Examinations:—

In the Competitions for these Scholarships, Candidates must have regularly attended in at least one class in the University of Edinburgh during each Winter Session in which they claim to have been Matriculated Students, and no Candidate is eligible who has discontinued attendance at the University for more than one year.

Each Scholarship is tenable on condition that the Scholar submits annually to the University evidence that he is prosecuting his studies, or his professional work, in a manner satisfactory to the Senatus. The evidence may consist of—(1.) Certificates of attendance on Lectures or Laboratories in this or some other University; or (2.) Certificate of having acted as Assistant to a Professor in this or some other University; or (3.) A written Report of work done by the Scholar during the year, together with a Thesis composed by himself on a subject connected with that work.

Not more than one of these Scholarships can be held by the same person, and Vans Dunlop Scholars cannot hold any other Fellowship, Scholarship, or Bursary in the University of Edinburgh.

Candidates for the Vans Dunlop Scholarships must, on entering for the Examinations, produce evidence that they have fulfilled the conditions as to eligibility of Candidates.

In the case of Scholarships where attendance on classes may be discontinued for not more than one year, Candidates are required to pay the Matriculation Fee for the year in which the competition takes place.

The names of Candidates highly distinguished in the Vans Dunlop Scholarship examinations may be published.

XXVIII.—ENGLISH LITERATURE AND POETRY.

Candidates are subjected to an Examination testing—(1.) Knowledge of the History of English Literature generally, and more particularly through a prescribed period; (2.) Acquaintance with certain books, chiefly of English Poetry, prescribed for special reading; (3.) Ability in English Composition, in the form of an Essay, written in the Examination Room, on some subject of literary criticism.

The Competition is open to all Matriculated Students in the second, third, or fourth year of their Matriculation, who have given regular attendance in the Class of Rhetoric and English Literature. The next Competition will take place in April 1897.

The Professor of Rhetoric and English Literature, and an Examiner appointed by the Senatus, are the Examiners.

1891. George Liddell.
Proxime accesserunt, And. Hamilton, M.A., and Stewart A. Robertson.
1894. Thomas Hart.
Prox. accessit, D. Nichol Smith.

XXIX.—Classical Learning—Latin and Greek.

1. *Latin*—The Examination will test :—
   (*a.*) Knowledge of Latin books and special subjects previously prescribed.
   (*b.*) Power of Latin Composition, and of translating from Latin authors not previously prescribed.
2. *Greek.*—(*a.*) Knowledge of Greek books previously prescribed.
   (*b.*) Power of Greek Composition, and of translating from Greek authors not prescribed.
   (*c.*) Knowledge of Greek History and Literature.

The Competition is open to Matriculated Students in their second, third, or fourth Session who have completed attendance in the Latin and Greek Classes necessary for graduation in Arts.

Any one who in the previous April may have completed his course for graduation in Arts in three Sessions may take part in the Competition, although not actually a Student in the Session during which the Examination takes place. The next Competition may take place in October 1896, or April 1897.

The Professors of Humanity and Greek are the Examiners.

1890. J. A. Norrie. | 1893. *W. W. M'Kechnie.*

XXX.—Commercial and Political Economy and Mercantile Law.

(*a.*) Candidates are subject to an Examination testing their knowledge (1.) of Commercial and Political Economy, and (2.) of Mercantile Law—two papers on the former and one on the latter.

(*b.*) The Competition is open to all who have been Matriculated Students for not less than two years, and who have regularly attended the Class of Commercial and Political Economy and Mercantile Law. The next Competition may take place in October 1895.

(*c.*) The Professor of Political Economy and an Examiner nominated by the Senatus are the Examiners.

1891. No award.
1892. *Cameron Morrison, M.A., LL.B.*

XXXI.—Logic and Metaphysics.

The Examination will test knowledge of (*a.*) Psychology, (*b.*) Logic, (*c.*) Metaphysics and the History of Philosophy. It will include the subjects embraced in the Lectures on each of these branches; also prescribed Reading and Studies of special subjects.

The Competition is open to all who have been Matriculated Students for not less than two nor more than six years, and who have regularly attended the Junior and Advanced Classes of Logic and Metaphysics. The next Competition will take place in April 1897.

The Professor of Logic and Metaphysics and the Professor of Moral Philosophy are the Examiners.

1891. Henry Barker, M.A. | 1894. *Hugh R. MacKintosh, M.A.*

XXXII.—Natural Philosophy.

The Examination will test the knowledge of the Candidates in Experimental Physics and Applied Mathematics. The Competition is restricted to Matriculated Students who have passed at least two and not more than six Sessions at the University, and who have attended the classes of Natural Philosophy. The next Examination will take place in April 1895.

The Professor of Natural Philosophy and an Examiner appointed by the Senatus are the Examiners.

1889. A. W. Duff, M.A.
1892. *J. C. Beattie.*

XXXIII.—Mathematics.

The Examination will test Candidates in pure mathematical subjects in the Honours Department for the Degree of Master of Arts, and in special subjects to be prescribed by the Examiners from time to time. The Competition is confined to Matriculated Students who have passed at least two and not more than six complete Sessions at the University of Edinburgh, and who have attended at least two of the Mathematical Classes, one of these being the third or Advanced Class. No student is eligible who has discontinued attendance at the University for more than a year. The next Examination will take place in April 1895.

The Professor of Mathematics and an Examiner appointed by the Senatus are the Examiners.

1889. J. I. Craig, M.A.
1892. *William Leslie Thomson, M.A.*

XXXIV.—Hebrew and Oriental (Semitic) Languages.

The Competition is open to all Matriculated Students (*a*) who have regularly attended Classes in the University for not less than two and not more than seven years, (*b*) who have attended at least two courses under the Professor of Hebrew and Oriental Languages.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Oriental Languages, and an Examiner appointed by the Senatus. The next Competition will take place at the end of Winter Session 1895-96.

1890. { James Thomson, M.A. / Charles H. Titterton, M.A. } equal.

1893. *William B. Stevenson, M.A.*

XXXV.—History.

The Competition is open to all Matriculated Students who have regularly attended classes in the University for not less than two and not more than six years, and who have also attended one or more courses of Lectures either by the Professor of History or by the Professor of Ecclesiastical History.

The Scholarship will be awarded by competitive examination. The Examiners are the Professors of History, the Professor of Ecclesiastical History, and either the Professor of Humanity or the Professor of Greek. The next Competition will take place in October 1895.

1889. David P. Heatley. | 1892. *John Linton, M.A.*

XXXVI.—Moral Philosophy.

The Competition is open to all who have been Matriculated Students for not less than two nor more than six years, and who have regularly attended the Ordinary and Advanced Classes of Moral Philosophy.

The Professor of Moral Philosophy and the Professor of Logic and Metaphysics are the Examiners. The next Competition will take place in April 1895.

1889. Charles M. Douglas, M.A. | 1892. *John Davidson, M.A.*
1890. W. B. Ingram, M.A.
(Lapsed Scholarship for 1 year.)

XXXVII.—Sanskrit and Comparative Philology.

The Competition is open to all Matriculated Students who have regularly attended classes in the University for not less than two and not more than seven years; and who have also attended at least two courses under the Professor of Sanskrit and Comparative Philology.

The Examiners are the Professor of Sanskrit and Comparative Philology, and another Examiner to be appointed by the Senatus. The next Competition will take place in April 1895.

1889. Hermann Walter. | 1892. *John Mackenzie, M.A.*

XXXVIII.—Skirving Scholarship for Moral Philosophy.

This scholarship is to be founded (after the death of an annuitant) in accordance with the Will of the late David Skirving, of No. 13 West-

bourne Park, London. It will be of the annual value of about £50, and tenable for three years. *See* Deed of Foundation at p. 350 of CALENDAR for 1876-77.

XXXIX.-XLII.—LANG SCHOLARSHIPS.

This is a Bequest by the late John Lang, Esq. of Warren Park, Ayrshire, with the object of founding four Scholarships, to be called the "Lang Scholarships," one in Natural Philosophy, one in Mathematics, one in Chemistry, and one in Botany. The capital sum will be payable on the death of the survivor of two liferenters.

XLIII.—MACKAY SMITH SCHOLARSHIP IN NATURAL PHILOSOPHY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Natural Philosophy in this University. The successful candidate is required to attend the class of Natural Philosophy, or to prosecute the study of Natural Philosophy, during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve. The next award may be made in April 1896.

1889. J. F. M'Kean, M.A.	1892. J. G. Anderson.
1890. James Holm.	1894. *J. T. Cameron.*

XLIV.—SCOTT SCHOLARSHIP.

This Scholarship, of about £ is awarded annually (a previous holder not being ineligible for re-election), for the purpose of assisting Graduates in Arts of the University, of not more than three years' standing at the date of their election as Scholars, to travel for purposes of Study or Research. Applicants are required to state:—1. The purpose for which they desire to use the Scholarship; and 2. What other means they have towards the object in view. The award will be based—(1) On the importance of the work to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the applicant for the work he proposes to undertake. The holders are required in all cases to satisfy the Senatus, by half yearly reports that they are carrying out the work undertaken; and must present a final report or deliver a short Course of Lectures on their work when completed. The appointment is made by the Senatus on a report by the Faculty of Arts on the merits of the applicants. The first competition will be open to all Graduates in Arts qualified as above, but thereafter preference will be given to Candidates desiring to undertake work in the following groups of subjects, under the following scheme of rotation, provided always that a suitable Candidate presents himself:—(1) Classical Languages and Classical Archæology; (2) Mental Philosophy; (3) Mathematical and Physical Science; (4) Semitic and Indian Languages; (5) English and Modern Languages; (6) History. The first award may be made in April 1896. See Regulations in CALENDAR for 1894-95.

IV.—FELLOWSHIPS.

I.—GUTHRIE FELLOWSHIP IN CLASSICAL LITERATURE.

This fellowship, founded in 1866 by James Guthrie, Esq., London, is of the annual value of £93, 15s., and is tenable for four years. By the terms of the Deed of Foundation (given at p. 210 of the CALENDAR for 1866-67) it is for proficiency in Classical Literature, and is open to Graduates in Arts of the University who have taken their Degree since the last competition. Students who have passed all their examinations for a Degree since the last competition, but have deferred graduating, are also eligible. It cannot be held along with any other Fellowship or Scholarship in a Scottish University. The next Competition may take place in April 1895.

1890. J. C. Smith, M.A.

1890. James Watt, M.A. (Lapsed Fellowship for two years.)

II.—SIR WILLIAM HAMILTON FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1866 by the Subscribers to the fund for a Memorial to the late Professor Sir William Hamilton, and by the Association for the better endowment of the University, is of the annual value of £97, 5s., and is tenable for three years. By the Deed of Foundation (given at p. 213 of CALENDAR for 1866-67), the Fellowship is open to all Graduates in Arts of the University of Edinburgh of not more than three years' standing at the time of the competition. It cannot be held along with any other Scholarship or Fellowship in a Scottish University. The subjects of examination are Logic, Metaphysics, Moral Philosophy, and the History of Philosophy. The next Competition may take place in April 1897.

1890. C. M. Douglas, M.A.

1893. *J. Lewis M'Intyre, D.Sc.*

III.—SHAW FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1867 by Contributors to a Memorial to Sir James Shaw, Bart., a native of Ayrshire, afterwards Lord Mayor of, and M.P. for, London, and by the Association for the better endowment of the University, for the encouragement of the study of Logic, Psychology, Metaphysics, Moral Philosophy, and the History of Philosophy, is awarded after competitive examination on these subjects. It is open to Graduates in Arts of any of the four Scottish Universities, of not more than five years' standing at the time of the competition, is of the annual value of £160, 17s. 6d., and is tenable for five years. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University, and it is not open

to the competition of any person who already holds a Fellowship in any English or Irish University, though the holder of the Shaw Fellowship will not be precluded from afterwards obtaining an English or Irish Fellowship. The holder is required during the fourth or fifth year of his tenure of the Fellowship to deliver in this University a Course of four Lectures on any of the subjects for the encouragement of the study of which the Fellowship was founded. The next Competition for the Fellowship may take place in April 1899. (Deed of Foundation, p. 237 of CALENDAR for 1868-69.)

1893. *Harry Barker, M.A.*

IV.—GEORGE HERIOT FELLOWSHIP.

This Fellowship of £100 is tenable for one year, and in special cases for a longer period, on the recommendation of the Senatus.

The Fellowship is open to Bachelors of Pure Science of the University of not more than five years' standing from his Bachelor's Degree, or to Masters of Arts with Honours, of the University, of not more than five years' standing from his Master's Degree, provided the Candidate has attended during his curriculum not less than two years at this University. It is awarded alternately by Competitive Examination in the following Groups or Departments of Study—(1) Mathematical, Physical, Experimental, and Natural Science; (2) Language and Literature; (3) Philosophy and History, in the order named.

The Examination is conducted by means of Theses on subjects connected with the special study or branch of research selected by the Candidates respectively, and approved by the Senatus three months before the Theses are lodged.

During his tenure the Fellow shall prosecute Research or Higher Special Study in some department of Literature, Philosophy, and History, or Pure Science, specified by him in his application for the Fellowship. The Stipend is payable half-yearly in advance. Before receiving any payment after the first the Fellow must submit to the Dean of the Faculty in which he is a Graduate a written report on the progress of the work in which he is engaged, with a programme of his future work. If this report and programme appear to be sufficient, the Dean will countersign the same and forward them to the Treasurer of the Heriot Trust as warrant for payment. The Group or Department of Subjects of Examination for 1894 is Mathematical, Physical, Experimental, and Natural Science.

Candidates are required to intimate to the Secretary of Senatus the proposed subjects of their Theses, and to state the manner in which they propose to fulfil the conditions of tenure if successful in gaining the Fellowship, on or before 1st July; and if the subjects be approved, Theses are required to be lodged with him on or before 1st October following. *See* Regulations in CALENDAR for 1894-95.

WILLIAM DICKSON TRAVELLING FUND.

This Fund (the interest of which amounts to about £100 per annum) has been established for the purpose of assisting Graduates of any Faculty, of not more than Three Years' standing, to travel, for a shorter or longer period, for purposes of study or research. Grants from the Fund may be made to holders of Scholarships, Bursaries, &c. Applicants are required to state—"(1) The purpose for which the Applicants desire to get a Grant for travelling; (2) the total amount of expenditure thought necessary; (3) the other means they have towards meeting this expenditure; and (4) the amount of the Grant required from the Fund." The award of a grant to be based on—"(1) The importance of the work proposed to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the Applicants for the work they respectively propose to undertake." "Holders of Grants in all cases to satisfy the Senatus by periodical reports that they are carrying out satisfactorily the work or investigation undertaken; and to present a final report, or to deliver a course of public University Lectures on their work when completed." Applications must be lodged with the *Secretary of Senatus* on or before 15th March annually. For Deed of Endowment, *see* p. 514 of CALENDAR, 1889-90.

1894.—Grants of £20 each were made to Gustav Mann, M.B., C.M.; W. J. Pennell, M.A.; A. F. Watson, B.Sc.; John Macmillan, M.A., B.Sc., M.B., C.M.; and R. Stewart M'Dougall, M.A., B.Sc. Similar grants were made from another fund to Sydney Smith, M.A.; Thomas Linton, M.A.; J. T. Grant, M.B., C.M.; and George Liddell, M.A.

FELLOWSHIPS, SCHOLARSHIPS, UNIVERSITY PRIZES, AND BURSARIES, OPEN FOR COMPETITION IN THE FACULTY OF ARTS DURING THE ACADEMIC YEAR COMMENCING 1ST OCTOBER 1894.[1]

Fellowships.[1]

1. *George Heriot's Fellowship*, No. IV., page 312.

Candidates are invited to intimate to the Secretary of Senatus the proposed subjects of their Theses, and to state the manner in which they propose to fulfil the conditions of tenure if successful in gaining the Fellowship, on or before 1st July 1894, and if the subjects be approved, Theses are required to be lodged with him on or before 1st October following.

2. *Guthrie Fellowship in Classical Literature*, No. I., page 311.

[1] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see above under Fellowships, &c., where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c.

Scholarships.[1]

3. *Rhind Classical Scholarship*, No. XX., page 303.
4. *Bruce Classical Scholarship* for two years, No. IX., page 301.
5. *Sir David Baxter Philosophical Scholarship*, No. IV., page 300.
6. *Bruce Philosophical Scholarship*, No. X., page 302.
7. *Charles Maclaren Mathematical Scholarship*, No. XXIII., page 304.
8. *Sir David Baxter Mathematical Scholarship*, No. III., page 300.

Candidates for Nos. 2 to 8 inclusively must give their names and addresses to the Clerk of Senatus, University, Edinburgh, *on or before* 15th March 1895.[2] For this Academic year Candidates who would be eligible in December 1894 will be held to be eligible in April 1895. The Examinations will begin in the *Examination Hall*, University, at nine o'clock on *Monday*, 1*st April* 1895, and will be continued on following days, at the same hour. In future the Examinations may be held in April or October as may be announced.

Vans Dunlop Scholarships.—The following are the General Regulations for the Examinations:—

Each scholarship is of the annual value of £100, and is tenable for three years.

In the Competitions, Candidates must have regularly attended in at least one class in the University of Edinburgh during each Winter Session in which they claim to have been Matriculated Students, and no Candidate is eligible who has discontinued attendance at the University for more than one year.

Each Scholarship is tenable on condition that the Scholar submits annually to the University evidence that he is prosecuting his studies, or his professional work, in a manner satisfactory to the Senatus. The Evidence may consist of—(1) Certificates of attendance on Lectures or Laboratories in this or some other University; or (2) Certificate of having acted as Assistant to a Professor in this or some other University; or (3) A written Report of work done by the Scholar during the year, together with a Thesis composed by himself on a subject connected with that work.

Candidates for Vans Dunlop Scholarships must, on entering their names for the examinations, produce evidence that they have fulfilled the conditions as to eligibility. They are required to be matriculated students of the year in which the competition takes place. Names to be given in *on or before* 15th March, unless otherwise stated.[2]

9. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, No. XXX., page 307. The examination will be held at the conclusion of the Graduation examination in Law in October 1895. Names to be entered *on or before* 15th October.[2]

[1] See footnote, p. 313.

[2] The University Authorities reserve the right to exclude Candidates who do not enter their names as directed.

The works on Political Economy recommended to Candidates are :—

Adam Smith's *Wealth of Nations*, Books III., IV., and V.
Nicholson's *Principles of Political Economy*, Vol. I.
Marshall's *Principles of Economics*, Vol. I.
Wieser's *Natural Value* (translated).
Nicholson's *Money and Monetary Problems* (2nd ed.), Part II.
Sidgwick's *Principles of Political Economy*, Book III.
Cunningham's *Growth of English Industry and Commerce*, Vol. I.
Nicholl's *History of the English Poor Law :* and *History of the Scotch Poor Law.*
Bastable's *Public Finance.*

Those on Mercantile Law :—

Smith's *Mercantile Law* (10th ed.).
Abbot on *Shipping* (13th ed.).
Benjamin on *Sales* (3rd or 4th ed.).

10. *Vans Dunlop Scholarship in Natural Philosophy*, No. XXXII., page 308. The Examinations will begin on 1st April 1895, at 9 A.M. and will be (in as far as convenient and practicable) combined with the Examination for Honours in the Department of Mathematics. Names of Candidates to be entered *on or before* 15th March.[1]

11. *The Vans Dunlop Scholarship in Mathematics*, No. XXXIII., page 308. In addition to the ordinary Honours' Examination, papers will be set on special subjects. The questions, some of which will be texts for short dissertations, will be set so as to allow the candidate to specialise his reading in one or other of the following lines :—(*a.*) Higher Algebra (Salmon, I.-XVII.), Higher parts of Differential and Integral Calculus—for example, Definite Integrals, Fourier's Theorem, Elliptic Integrals, Differential Equations (Forsyth) ; (*b.*) Theory of Invariants (Salmon, I.-XVII.), Projective Geometry, Higher Plane Curves (Salmon, Chapters I.-V.) ; Geometry of Three Dimensions (Salmon, Chapters I.-XIII.). The Professor of Mathematics will give advice regarding a course of reading for the examination. The Examination will begin on 1st April 1895, at 9 A.M. Names of Candidates to be entered *on or before* 15th March.[1]

12. *Vans Dunlop Scholarship in History*, No. XXXV., page 309. The next competition will take place on the third Monday, Tuesday, and Wednesday of October 1895, beginning at 10 A.M. each day. Names to be entered *on or before* 28th September.[1]

The subjects prescribed are :—

(1.) "History of Great Britain from 1714 to 1820."
(2.) "History of Scotland from 1603 to 1746," both of these years being included.
(3.) "History of Rome from 88 B.C. to 14 A.D."
(4.) "History of France under Louis XIV."

[1] See footnote 2, page 314.

13. *Vans Dunlop Scholarship in Moral Philosophy*, No. XXXVI., page 309. The Competition will begin on 2nd April 1895, at 2 P.M., and the Examination will test the knowledge of (*a*) Moral Philosophy, (*b*) History of Moral Philosophy, (*c*) the Relations of Intellectual and Ethical Schemes of Leading Thinkers, (*d*) Recent Ethical Literature.

The following is the prescribed course of study in addition to the class work:—Xenophon's *Memorabilia;* Plato's *Republic*, iii.-vii.; Aristotle's *Nicom. Ethics;* Diogenes Lærtius; Lives of Protagoras, Socrates, Plato, Aristotle, Zeno of Citium, and Epicurus; Hume's *Enquiry concerning the Principles of Morals:* Reid's *Active Powers*, with Hamilton's Notes; Kant's *Groundwork;* Hegel's *Philosophy* of Spirit; Sidgwick's *Methods of Ethics;* Green's *Prolegomena to Ethics.* Names to be entered *on or before* 15th March.[1]

14. *Vans Dunlop Scholarship in Sanskrit and Comparative Philology*, No. XXXVII., page 309. The next Competition will take place in the end of March or beginning of April 1895. Names to be entered *on or before* 15th March.[1]

The following are the subjects of Examination:—

SANSKRIT.

Panchatantra, Book I.
Sakuntalā.
Meghadūta, with Mallinātha's commentary.
Grammar. Passages for translation into Sanskrit.
Some knowledge of the history of Sanskrit literature.

COMPARATIVE PHILOLOGY.

Delbrück, Introduction to the Study of Language.
Henry, Short Comparative Grammar of Greek and Latin; with reference to Sanskrit etymology.

15. *Neil Arnott Scholarship for Experimental Physics*, No. XXIV., page 305.

16, 17, 18. *Three Ferguson Scholarships*, Nos. XXV.-XXVII., page 305. Candidates are required to enter their names at the Office of the Ferguson Bequest Fund, 94 Bath Street, Glasgow, not later than 1st September 1894.

Prizes.[2]

1. The *William Dickson Travelling Fund*, page 313.

2. The *Lord Rector's Prize*, of twenty-five guineas, for the best Essay on "The Writings of Edmund Burke."

The Prize is open to Students of the University, and to Graduates of not more than two years' standing. Essays to be lodged with the

[1] See Footnote 2, page 314.
[2] See Footnote, page 313.

Secretary of Senatus on or before 1st November,[1] each Essay to be sent anonymously, distinguished by a motto, and accompanied by a sealed envelope containing the name, address, and University standing of the Candidate.

3. *Scott and Dunbar Prize*, No. VI., page 298.

4. *Bruce of Grangehill and Falkland's Prize*, No. III., page 297.

5. *Neil Arnott Prize*, No. I., page 684.

6. *Cousin Prize in Fine Art*, No. VII., page 299.

7, 8. *Gray Prizes*, No. IV., page 298, of £20 and £10 for the first and second best Essays on "The Poetry and other Writings of James Russell Lowell." For further information apply to the Rev. Dr Ritchie, Duns.

9. *Dr Muir's Prizes*, No. V., page 298.

10 and 11. *Two Newton Bursaries or Prizes*, No. LXXI., page 294.

12. *The Kelland Memorial Prize* of about £4, 10s. will be awarded by Examination in October. The paper will be on the Higher Geometry for the John Welsh and Heriot Bursaries (set on Monday, 8th October, at 9 A.M.), with such additional questions as may be deemed necessary. Students who made a complete attendance on the Junior Mathematics Class for the first time in the previous Session (1893-94) will alone be eligible to compete for the prize in October next. Names to be given in not later than 21st September.[1]

Bursaries.[2]

FOR STUDENTS ENTERING THE FIRST YEAR.

For Time-Table of Examinations, see pages 132-134.

The following Bursaries are awarded on the results of the University Bursary Examinations unless otherwise expressly indicated; and when not otherwise indicated are tenable at the University of Edinburgh only.

For Bursary and other purposes where the phrase First-year's Student in Arts or Pure Science is not by Deed of Foundation or otherwise already defined, it shall be held to mean "A Student in Arts or Pure Science who for the first time after passing the Preliminary Examination is attending a Class or Classes qualifying for Graduation."

The Subjects of Examination for the first year Bursaries Nos. 5 to 18 inclusively in the following list are:—English, Latin, Greek, Mathematics, all on the Higher Standard, with additional papers in each subject. The Examination Papers are denoted in the Time-Table of Examinations by the figure 1.

The Subjects of Examination for the Preferential Candidates for Bur-

[1] See footnote 2, page 314.

[2] See footnote, p. 313.

saries Nos. 19 to 26 inclusively are English (as for Arts and Science Preliminary), Lower Latin, Lower Greek, and Lower Mathematics. The Examination papers are denoted in the Time-Table of Examinations by the figure 2.

Candidates who intend to present themselves for Examination for Bursaries Nos. 1 to 26 inclusively may obtain schedules for applications at the Matriculation Office, University (Old) Buildings, which must be completed and returned to the Clerk of Senatus *before* 21st September. The University Authorities reserve the right to exclude Candidates who do not comply with this rule, and Preferential Bursaries for which no Candidate has entered before the above date will be thrown open to general competition, or otherwise dealt with, in terms of the Deeds of Foundation.

County Clubs, and others who prefer this examination, may, by arranging with the University Court for the cost of Examining, avail themselves of the University Examinations by giving due written intimation of the names of their candidates at the Matriculation Office not later than 21st September. Those who desire to have their Bursaries inserted in the CALENDAR under the head of Bursaries open during the year, are particularly requested to give intimation to the Editor before 1st January.

Candidates for Bursaries, unless they are also Candidates for the Preliminary Examination for the purpose of entering on a Course for Graduation, are not required to pay any fee.

Town Council Bursaries.—Candidates for Bursaries in the gift of the Town Council, many of which are vacant, are referred to the "*City Clerk, Council Chambers,* Edinburgh," to whom early application should be made.

County Club and Private Bursaries.—Candidates for Bursaries instituted by various County Clubs are referred to the respective Secretaries of those Clubs. Information as to Private Bursaries may be obtained from the Patrons or from their Agents.

The names of the successful Candidates, and of others distinguished in the ordinary Bursary competition, will be published, in the order of merit, in the University Calendar, along with the names of the schools from which they come, provided that they have matriculated and enrolled in the necessary classes for 1894-95.

1 and 2. *Two John Welsh Classical Bursaries*, annual value £20 each, tenable for four years. Subjects of examination—Latin, Greek, English.

3 and 4. *Two John Welsh Mathematical Bursaries*, annual value £20 each, tenable for four years. Subjects of examination—Mathematics, especially pure Geometry. (Candidates are recommended to read Macdonald's *Higher Geometry*, Wilson's *Solid Geometry and Conic Sections*, and Casey's *Sequel to Euclid*, as partly indicating the scope of the examination in Geometry. What will be looked for is,

not so much exhaustive knowledge of all the more intricate theorems, as a thorough knowledge of such as are more elementary and fundamental in their character, and ability to apply these in fairly straightforward exercises.)

5. *Bailie Cousin's Bursary*, £28 a year, tenable for three years. The Bursary cannot be held along with any Fellowship, Scholarship, or Bursary, or with any situation or appointment yielding an annual income of £30 or upwards.

6, 7, 8. *Three Whitelaw Bursaries*, each of about £22, 6s. 4d., one tenable for three years, one for two years, and one for one year.

9. *First Patrick Bursary*, of about £80 a-year, tenable for two years, for those who have completed their School Education at Ayrshire schools or academies.

10. *Second Patrick Bursary*, of about £40 a-year, tenable for two years, for those who have completed their School Education at Ayrshire schools or academies.

11. *One University Endowment Association Bursary*, of the annual value of £20, tenable for three years. This Bursary cannot be held with any other Bursary in any Scottish University.

12. *One Tyndall Bruce Bursary*, of the annual value of £20 a-year, tenable for three years.

13, 14. *Two Sibbald Bursaries*, of the annual value of £30, tenable for three years. Apply to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

15. *Thomson Bursary*, £25 a-year, tenable for four years. Apply to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, on or before 15th September.

16, 17. *Two Mann Bursaries*, each of about £26, 13s. 4d. a-year, tenable for three years. Candidates must be sons of residents in the town of Nairn, *i.e.*, one or other of their parents must have resided within the municipal boundaries for at least twelve months at some period prior to the competition. Should there be no qualified Candidate of the first year for this Bursary, a notice will be posted at the College gate soon after the Bursary Competition. Other Preferential Candidates must then lodge their claims within one week after the notice appears on the Board.

18. *Cowan Bursary*, £30 a-year for two years, and £20 for third year. Confined to students of Ayr Academy. Candidates' names must appear in Distinguished or Honours List, or Bursary will not be awarded. Apply to J. G. M'Skimming, Accountant, Ayr.

19, 20. *Two Grierson Bursaries*, each of the annual value of £20, one tenable for four years, and one for two years—restricted in the first place to natives of the parishes of Crawford and Leadhills.

21. *Fotheringham and Forrest Bursary*, of the annual value of

£22, 3s., tenable for four years—restricted in first place to relatives of Founder, then to such as are of the name of Forrest.

22. *Four Maule Bursaries*, each of £20 a-year, one tenable for six years, one for five years, one for four years, and one for three years, for the maintenance and education of four poor and deserving students if they shall continue so long to prosecute their studies at the University.

23, 24. *Two Jardine of Thorlieshope Bursaries*, each of the annual value of £38, 2s. 2d., and tenable for four years. Natives of the rural districts of Roxburghshire and Dumfriesshire to be preferred. The Bursars are required to attend the classes necessary for the Degree in Arts, and to take the Degree at the end of the course. In the event of there being no first year Students, the Bursary will be thrown open to competition for one year only to second, third, or fourth year Students in succession.

25. *Mackinnon Bursary*, of £18, 15s. a-year, tenable for three years. Candidates must be natives of the Counties of Argyll, Bute, and Arran, Inverness, Ross, or Sutherland, and must be examined in Gaelic.

26. *Ardvorlich Bursary*, of the annual value of £16, tenable for four years. Open to natives of Comrie, Balquhidder, Callander, or Killin, failing whom, to natives of Perthshire, and failing such, to the best qualified Candidate who requires aid to enable him to obtain a University education. The holder must attend Arts or Science Classes.

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27. *Zetland Bursary*, of about £40 per annum, tenable for three years. The Bursary is open for competition to natives of the Islands or County of Orkney and Zetland, or children of parents, one or both of whom shall have been born in or connected for a long period of years with said Islands or County. Apply to Messrs Dundas & Wilson, C.S., 16 St Andrew Square, Edinburgh, before 15th September.

28. *Renton Bursary*, of about £18, 8s. 6d., tenable for one year, is for a Student pursuing his studies in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of these classes as he may consider proper, and who requires pecuniary assistance. The Bursary cannot be held by any one under the age of sixteen or above twenty-one. The Bursar shall cease to hold this Bursary if during the same session he shall be appointed to another Bursary of the value of £30 or upwards. The Examination is in English and Elementary Mathematics, and will take place on Saturday, November 3, at 10 o'clock. Names of Candidates to be entered at the Matriculation Office, on or before 27th October.[1]

29. The *Donald Fraser Bursary*, of £50, for high merit in the University Class of Natural Philosophy combined with proficiency in Laboratory Work, is awarded annually at the end of the Winter Session.

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[1] See footnote 2, page 314.

30, 31. *Two Grant Bursaries*, each of the annual value of £90, tenable for four years, and open to Candidates of the name of Grant. The holders may attend classes in the Faculties of Arts, Science, Divinity, Law, or Medicine. Apply to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

32-36. *Five George Heriot Bursaries for Boys*, each of the value of £30 a-year, tenable for three years. Subjects of examination :—(1) Latin; (2) Mathematics; (3) English; (4) Greek; (5) French and German; (6) Higher Geometry. Each Candidate *must* take up subjects (1), (2), and (3), and must attain the pass standard in at least *two* of these subjects. He may, in addition, take up *two*, but *not more* than two, of subjects (4), (5), and (6). The examination in Higher Geometry is the same as for the John Welsh Mathematical Bursaries Nos. 3 and 4, page 318. The examination papers are those marked 4 in the Time Table of Examinations, pages 132-134. Applications for Schedules for these Bursaries may be made to the *Governors of George Heriot's Trust*, at the Office of the Treasurer, 20 York Place, Edinburgh, on and after 15th August, and must be returned to him not later than 15th September. Candidates are required to state in their schedules of application the subjects in which they desire to be examined.

37-44. *Eight George Heriot Bursaries for Women*, each of the value of £30 a-year, tenable for three years. Subjects of examination :—(1) Latin; (2) Mathematics; (3) English; (4) Greek; (5) French; (6) German; (7) Higher Geometry. Each Candidate must take up subjects (1), (2), and (3), and must attain the pass standard in at least *two* of these subjects. The Candidate may, in addition, take up *two*, but *not more* than two, of subjects 4-7 inclusively. The examinations are the same as for the Bursaries for boys, except that French and German *each* count as a separate subject for women. Application to be made in the manner referred to in the previous paragraph. The examination papers are marked 4 in the Time-Table.

45-49. *Five George Heriot Bursaries*, of £30 each, and tenable for one year, at St George's Training College, Edinburgh. Candidates *must pass the Preliminary Examination of the University either in Arts or Science*. They may take as many subjects in addition to those qualifying for the preliminary as they please; but should they fail to secure 25 per cent. of the marks allotted to a subject the paper will be cancelled.

Full information and Schedules of Application may be had on and after 9th June from the Treasurer of George Heriot's Trust, 20 York Place, Edinburgh, and must be returned to him not later than 9th July.

50, 51. *Two Simson Bursaries*, each of the annual value of £25, tenable for three years, for Students who, having passed the Preliminary Examination, are entering on the first year of the course in Arts and are studying for the Ministry of the Church of Scotland. See

definition of a First-year's Student, at page 317. The Examination will be held at the end of October or beginning of November. For conditions of tenure and subjects of Examination apply to the Rev. Dr Langwill, Currie, or to the Rev. John Patrick, B.D., Greenside, Edinburgh.

52, 53, 54. *Bursaries offered by The Edinburgh Association for the University Education of Women.*

(1) *The Houldsworth Bursary*, of about £30 for two years.

(2) *The Earl of Zetland's Bursary*, about £20 for one year.

(3) The *Victoria Jubilee Bursary*, founded by His Excellency Dr Gunning, £40 for one year.

These Bursaries are offered to women Candidates who pass the *Edinburgh University Preliminary Examination of October* 1894, *with a view to graduation in Arts or Science.* They cannot be held along with any other Bursary or Scholarship whatsoever, and will be awarded to such Candidates as in the opinion of the Executive Committee best fulfil the conditions of the several trusts.

Applications may be sent to the Hon. Secretary of the Association, Miss Louisa Stevenson, 13 Randolph Crescent, Edinburgh.

55, 56, 57. *Four Buchanan Bursaries*, each of £30 a year, and tenable for four years, are open for competition among young men of the names of Buchanan, M'Millan, M'Auslan, M'Wattie, and Risk. For particulars apply to G. S. Buchanan, Esq., 85 Candleriggs, Glasgow.

FOR STUDENTS ENTERING THE SECOND SESSION IN ARTS.[1]

See Time-Table of Examinations.

1. *Tyndall Bruce Bursary*, £35 a-year, for three years.

2. *One Stewart Bursary*, annual value £10, tenable for three years.

The subjects of examination are Latin, Greek, and Mathematics.

The following subjects are prescribed for the examinations in Latin and Greek:—*Latin*—Horace, *Epistles*, Bk. i.; Vergil, *Aen.*, vii., viii.; Tacitus, *Annals*, Bk. i.; Latin prose composition. *Greek*—Homer, *Odyssey*, i. and ii.; Aristoph., *Birds* and *Clouds* (Merry's Edition); Plato, *Protagoras;* Greek prose composition.

3. *Patterson Bursary in Anglo-Saxon Grammar and Literature*, of £20 a-year, tenable for two years, and open to all students in their second, third, or fourth year of Matriculation who present to the Faculty a certificate of attendance in the Class of English Literature in the University. The holder must produce certificate of attendance on the Class of German and the Teutonic Languages in the first session after his appointment. The Examination will be on—

(1.) *Literature.*—The Class Lectures; Ten Brink's *Early English Literature*, Vol. I., Bk. i., transl. by Kennedy (Bell);

[1] See footnote, page 313.

Stopford Brooke's *History of Early English Literature* (i. and ii.).

(2.) *Language.*—Old English Grammar, as treated in Sievers's *Old English Grammar*, ed. Cook (Ginn), the "Grammatical Introduction" to Sweet's *Old English Reader* (Clar. Press); Morris's *Historical Outlines of English Accidence;* and Kellner's *Historical Outlines of English Syntax* (Macmillan).

(3.) *Prescribed Readings.*—*The Chronicle*, A.D. 890-1001, in the Parker Text (ed. Plummer); selections from Ælfred's "Orosius," Ælfred's "Beda," and Ælfric's "Life of King Oswald," printed in Sweet's *Old English Reader* (Nos. V., X., XV.); *The Wanderer* (Grein, ed. Wülcker, I., p. 284; Sweet's *Reader*, p. 177); *The Beowulf*, l. 1251-l. 1887, Siȝon þa to slæpe., . . . se þe oft maneȝum scod (Grein, ed. Wülcker I., pp. 195-219).

(4.) An unseen passage for translation into modern English.

The names of Candidates for Second Year Bursaries must be announced at the *Matriculation Office, University, Edinburgh*, not later than the 21st September 1894.

4 and 5. *Two Spence Bursaries*, each of the annual value of £30 for first year and £40 for second year of tenure, open to Students who have studied in the University of Edinburgh, at the commencement of their second session in a three years' curriculum, and of their third session in a curriculum of four years. Examination in Latin, Greek, and Mathematics, to be held at Edinburgh in the end of September or beginning of October. The subjects of examination are Latin, Greek, and Mathematics. Candidates apply to Mr Henry A. Pattullo, Writer, 1 Bank Street, Dundee, Factor to the Trust, for particulars.

FOR STUDENTS ENTERING THE THIRD SESSION IN ARTS.[1]

See Time-Table of Examinations.

1. *Horsliehill Scott Bursary*, of £38, 8s. 8d. a-year (under deduction of Examiners' fees), for two years.

2, 3. *Two Macpherson Bursaries*, each of £42, 18s. 8d. a-year, tenable for two years, restricted to Students who are natives of the Highlands and acquainted with Gaelic. Candidates must present evidence of Highland birth.

The subjects of examination for *Third* Session Bursaries are Classics, Mathematics, and Logic with Psychology.

The following subjects are prescribed for the examination in Classics:—Cicero, *pro Sulla;* Horace, *Odes*, iii., iv.; Plato, *Protagoras;* Aristoph., *Birds* (Merry's edition).

[1] See footnote, page 313.

No special books prescribed for Mathematics, or for Logic with Psychology. Candidates should revise the lectures and text-books in these classes.

The Gaelic paper set to Candidates for the Macpherson Bursary will contain a passage from M'Intyre's "Moladh Beinn Dòrain," together with passages in prose and verse from authors not prescribed, to be translated into English; questions in Gaelic Grammar; and an English passage to be translated into Gaelic prose.

4. *Patterson Bursary.* See page 322.

The names of Candidates for third year Bursaries must be announced at the *Matriculation Office, University, Edinburgh*, not later than the 21st September 1894.

The attention of all Bursars in the Faculty of Arts is particularly called to the following Regulation:—

"Bursars connected with the Faculty of Arts must annually attend at least two of the Classes necessary for the Degree of Master of Arts, and must present themselves at the Examinations necessary for that Degree.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty of Arts, on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Arts*, after the 13th November; also at the end of the Session in April. In applying to the Dean for the Certificate in November, Bursars must present to him their Class Cards for the Session, as evidence that they have enrolled in their classes; and at the end of the Session they must present to him certificates from the Professors that they have attended with regularity and made progress in their studies. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

G. CHRYSTAL, LL.D.,
Dean of the Faculty of Arts, and Professor of Mathematics.

II.

FACULTY OF SCIENCE.

1894-95.

Dean.

PROFESSOR GEIKIE, D.C.L., LL.D., F.R.S., &c.,

31 *Merchiston Avenue, Edinburgh.*

Convener of Science Degrees Committee in Mental Science and Philology.

PROFESSOR CALDERWOOD, LL.D.,

Craigrowan, Napier Road, Edinburgh.

Faculty of Science.

Students who do not intend to graduate in Science may attend any of the Classes in the Faculty on payment of the Matriculation and Class Fees and without having passed any Preliminary Examination. Attendance on any Class with the view to Graduation in Pure Science will not qualify unless the whole Preliminary Examination has been previously passed. Those who intend to graduate in Engineering or in Agriculture must pass the Preliminary Examination before they present themselves for any part of the First Science Examination, but not necessarily before entering on the Curriculum. The Classes in the Faculty of Science are now open to women, with the exception of a few Classes in which provision has not yet been made for teaching women in the University. See Regulation regarding the attendance by women on Extra Academical Lectures which qualify for Graduation in this University, page 353.

Programme of Classes.

WINTER SESSION, 1894-95.

The Classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated:—

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.
Junior Mathematics...	16 Oct., 12 o'cl.	Prof. Chrystal	£3 3
Senior Mathematics...	16 Oct., 9 ,,		3 3
Mathematics (Intermediate Honours)	17 Oct., 11 ,,		3 3
Do. (Advanced Honours).....	17 Oct., 10 ,,		3 3
Zoology (Elementary)	9 Oct., 12 ,,	Prof. Ewart	4 4
Do. (Advanced)..	9 Oct., 3 ,,		2 2
Practical Zoology (Elementary).	9 Oct., 11 ,,		2 2[1]
Do. (Advanced)	9 Oct., 1.30 ,,		3 3[1]
Botany (Advanced) ...	9 Oct., 11 ,,	Prof. Balfour,....	2 2[2]
Prac. Bot. (Advanced)	9 Oct., 11 ,,		3 3[2]

[1] Besides charge of 10s. for Laboratory Expenses.
[2] Besides Garden Fee of Five Shillings.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.
Natural Philosophy...	16 Oct., 11 o'cl.	Prof. Tait.....	3 3
Do. (Advanced Honours).	24 Oct., 12 ,,		3 3
Physical Laboratory .	5 Nov., 10 ,,		2 2
Natural Philosophy (Intermediate Honours Course) (*Mon., Wed., Fri.*)	17 Oct., 9 ,,	Cargill G. Knott, D.Sc.....	3 3
Dynamics (Advanced Science Course) (*Mon., Wed., Fri.*)	17 Oct., 10 ,,		3 3
Chemistry	9 Oct., 10 ,,	Prof. Crum Brown	4 4
Practical Chemistry...	3 Dec., 11, 2,,		3 3
Practical Astronomy (*Mon., Tues., Wed., Th.*)	23 Oct., 11 ,,	Prof. Copeland..	3 3
Anatomy	9 Oct., 1 ,,	Prof. Sir Wm. Turner.....	4 4
Practical Anatomy ...	1 Oct., daily.		3 3
Anatomical Demonstrations.....	9 Oct., 4 o'cl.		2 2[1]
Physiology	9 Oct., 10 ,,	Prof. Rutherford	4 4
Practical Physiology..	10 Oct., 1 ,,		3 3
Do. (Advanced)...	16 Oct., 11 ,,		3 3
Geology & Mineralogy	16 Oct., 4 ,,	Prof. Geikie	4 4
Prac. Class (*Mon., Wed., & Fri.*) ...	22 Oct., 2-4 ,,		2 2
Engineering	1 Nov., 9 ,,	Prof. Armstrong	4 4
Do., Short Additional Course...	9 Jan., 1 ,,		1 1[2]
Geometrical & Mechanical Drawing	2 Nov., 10 to 2 ,,		3 3
Sanitary Engineering and Drawing	7 Nov., 10 ,,		3 3
Public Health Lectures	... ...	... ...	
Agriculture and Rural Economy..	10 Oct., 9 ,,	Prof. Wallace ...	4 4
Economics as applied to Agriculture. (*The Political Economy Class in Arts till Christmas*)	16 Oct. 5 ,,	Prof. Nicholson	2 2

1 When taken along with Practical Anatomy, £1, 1s.
2 No Class fee for Students of the regular Class of Engineering. Five Shillings Entrance Fee.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.
Forestry	10 Oct., 11 o'cl.	Col. Bailey, R.E.	£3 3[1]
Agricultural Entomology (Twenty Lectures)	8 Jan., 2 ,,	W. Fream, LL.D., B.Sc. (Lond.)	2 2[1,2]
Comp. Embryology	8 Jan., 2 ,,	J. Beard, D.Sc., Ph.D.,	3 3[3]

[1] Five Shillings University Entrance Fee for Non-Matriculated Students, unless taken with a view to Graduation in Agriculture under the New Regulations.
[2] Free to all present and past Students of the Agriculture Class.
[3] Five Shillings University Entrance-fee.

SUMMER SESSION, 1895.

The Classes will be opened as follows. They will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.
Senior Mathematics (First Graduation Half-Course)	1 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	£2 2
Senior Mathematics (Second Graduation Half-Course)	1 May, 12 ,,		2 2
Physics (*mainly for Students of Medicine*)	1 May, 12 ,,	Prof. Tait	3 3
Physical Laboratory	1 May, 10 ,,	Prof. Tait and Assistant	2 2
Applied Mathematics (Electricity and Magnetism)	1 May, 11 ,,	C. G. Knott, D.Sc.	2 2
Advanced Experimental Physics	1 May, 10 ,,	W. Peddie, D.Sc.	2 2
Chemistry, (Organic), Advanced Class — (*Tues., Wed., & Thur.*)	1 May, 1 ,,	Prof. Crum Brown	2 2
Do. (Practical)	1 May, 2 ,,		3 3
Anatomical Demonstrations	1 May, 11 ,,	Prof. Sir Wm. Turner	2 2
Practical Anatomy	1 May, ,,		2 2
Anthropology (*Tues., Wed., & Fri.*)	7 May, 2 ,,		2 2[1]

[1] When taken with Practical Anatomy, £1, 1s.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.
Practical Physiology, including Histology	1 May, 3 o'cl.	Prof. Rutherford..	£3 3
Do. (Advanced Class)	*In Winter only.*	Prof. Rutherford..	3 3
Geology (*Mon., Wed., Fri.*).....	2 May, 4 o'cl.	Prof. Geikie,.....	3 3
Field Demonstrations on *Saturdays.*			
Zoology (Advanced) ...	1 May, 3 ,,	Prof. Ewart.....	2 2
Practical Zoology (Elementary).....	1 May,[3].....		2 2[1]
Do. (Advanced)	2 May,[3].....		3 3[1]
Botany.....	1 May, 8 o'cl.	Prof. Bayley Balfour.....	4 4[2]
Practical Botany.....	1 May, 9 ,,		2 2[2]
Field Demonstrations on *Saturdays.*			
Engineering Field-Work (Surveying, Levelling, &c.)	20 June 9.30 ,,	Prof. Armstrong...	3 3

[1] Besides charge of 10s. for Laboratory Expenses. [2] Besides Garden Fee of 5s.
[3] At hours to be arranged.

The following means are afforded for Practical Instruction:—

LABORATORIES.

The Physical Laboratory, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

Geological and Petrological Laboratory, for practical instruction in the study of Minerals, Rocks, and Fossils, and the methods of plotting and drawing geological maps and sections, is open on Monday, Wednesday, and Friday from 2 to 4, under the superintendence of Professor Geikie.

[illegible] Drawing Class Room, open daily during the Winter [illegible] for practical instruction in drawing and

For Footnote 2, page 331, read :—

Fees for Chemical Laboratory :—Winter Session, £10, 10s. ; Winter Session, whole day, Oct.-Dec., or Jan.-March, or Summer Session, £5, 5s.; Winter Session, half day, £6, 6s. ; Winter Session, half day, Oct.-Dec., or Jan.-March, or Summer Session, half day, £3, 3s. Preference will be given to Students in the above order.

mination of the Physical and Economical Constants of Materials, Machines, and Prime Movers, and in the Practical Applications of Electricity.[1]

PRACTICAL INSTRUCTION IN OFFICE AND FIELD-WORK, daily, in connection with the Summer Course of Lectures on Surveying, Levelling, &c., from 11 A.M. to 4 P.M. each day.

The AGRICULTURE DEPARTMENT in the Museum of Science and Art is open daily to Students attending the Agriculture Class. Excursions to farms are made on Saturdays by Members of the Agriculture Class, and demonstrations are given from time to time in the Agriculture Laboratory. The leading agricultural newspapers are left for the use of Students in the Agriculture Lecture Room.

The ROYAL OBSERVATORY is open to Students of Practical Astronomy on Friday evening, from 8 P.M.

THE BOTANICAL LABORATORY at the ROYAL BOTANIC GARDEN is open daily for the practical study of plants and for research, under the superintendence of the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, B.A.

PHYSIOLOGICAL LABORATORY, for the prosecution of Physiological Research, and for the study of Practical Physiology, open daily, under the superintendence of the Professor, assisted by E. W. Carlier, M.D., C.M., B.Sc., and Gustav Mann, M.B., C.M.

The CHEMICAL LABORATORIES (distinct from the Practical Chemistry Room), completed in 1885, contain accommodation for forty Students. The Laboratories, which are fitted with all necessary apparatus for chemical analysis and research, are open daily, under the superintendence of the Professor, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc.; and A. Forbes Watson, B.Sc.[1 2]

DISSECTING ROOMS, open daily under the superintendence of Professor Sir William Turner, assisted by David Hepburn, M.D.; J. B. Yeoman, M.B., C.M.; and other assistants. Opens 1st October 1894.

NATURAL HISTORY LABORATORIES, for research and for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the superintendence of the Professor, assisted by J. Beard, D.Sc., Ph.D.[1]

PUBLIC HEALTH LABORATORY, for Hygienic investigation, comprises three departments, viz.: a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the superintendence of the Professor, assisted by Charles Hunter, Stewart, M.B., C.M., B.Sc., and James Buchanan Young, M.B., C.M., D.Sc. Opens 1st October 1894 and 1st May 1895.[1]

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[1] Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

[2] For Winter Session, Oct.-Dec., or Jany.-March, 9.30-4.30, £5, 5s. Whole Session, 9.30-1 or 1-4.30, £5, 5s. Oct.-Dec., 9.30-1 or 1-4.30, £3, 3s. Summer Session, 9.30-1 or 1-4.30, £3, 3s. Preference will be given to Candidates in the above order.

MATRICULATION.

Students are required to take out their Matriculation and Class Tickets for each course of Lectures which they propose to attend, not later than fifteen days after the commencement of the course. Matriculation consists in paying during each year of study an entrance fee to the University, and in inscribing the name in the Students' Album.

Candidates for Degrees, not Matriculated Students of the University, availing themselves of the permission to attend the Classes of Extra-Academical Teachers in Edinburgh, must pay a fee equivalent to the Matriculation fee.

THE MATRICULATION FEES, &C., ARE—

For the Academical Year, 1st October to 1st October, .	£1	1	0
For the Summer Session only (1st May to 30th September inclusively), ...	0	10	6
(Candidates entering for Graduation Examinations or for Graduation, pay £1, 1s.)			
University entrance-fee in lieu of Matriculation for each of certain additional Courses (see Class Lists), . . .	0	5	0

CLASS SESSIONS.

There are Two Sessions in each year, viz. :—

I. The Winter Session, which opens on the 9th of October 1894, and closes 29th March 1895. Practical Anatomy, and Public Health Laboratory work begin on the 1st of October 1894.

The Classes will meet for the last time before the Christmas Vacation on Friday, 21st December 1894, and will re-assemble on Tuesday, 8th January 1895.

II. The Summer Session, which opens on the 1st of May, and closes on the 19th of July 1895.

Graduation in Science.

COURSES OF LECTURES, 1894-1895.

I.—MENTAL SCIENCE.

I. LOGIC AND METAPHYSICS.

PROFESSOR SETH.

For Synopsis of Lectures, see under Faculty of Arts.

II. MORAL PHILOSOPHY.

PROFESSOR CALDERWOOD.

For Synopsis of Lectures, see under Faculty of Arts.

II.—PHILOLOGY.

I. LATIN.

PROFESSOR GOODHART.

For Synopsis of Lectures, see under Faculty of Arts.

II. GREEK.

PROFESSOR BUTCHER.

For Synopsis of Lectures, see under Faculty of Arts.

III. SEMITIC LANGUAGE.

PROFESSOR DOBIE.

For Synopsis of Lectures, see under Faculties of Arts and Divinity.

IV. SANSKRIT LANGUAGE AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

For Synopsis of Lectures, see under Faculty of Arts.

III.—PURE SCIENCE.

I. MATHEMATICS.

PROFESSOR CHRYSTAL.

For Synopsis of Lectures, see under Faculty of Arts.

II. ZOOLOGY, including COMPARATIVE ANATOMY.

PROFESSOR EWART.

For Synopsis of Lectures on Zoology and of Courses on Practical Zoology, see under Faculty of Medicine.

COMPARATIVE EMBRYOLOGY.

LECTURER—J. BEARD, D.SC., PH.D.

For Synopsis of Lectures, see under Faculty of Medicine.

III. BOTANY.

PROFESSOR BAYLEY BALFOUR.

For Synopsis of Lectures on Botany, see under Faculty of Medicine.

IV. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures on Natural Philosophy, &c., see under Faculty of Arts.

V. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Courses, see under Faculty of Medicine.

VI. ASTRONOMY.

PROFESSOR COPELAND.

Lectures on Practical Astronomy will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays. Instruction in the use of portable and fixed Astronomical Instruments will be given at the Royal Observatory on Calton Hill on Fridays, beginning at 8 P.M. The Lectures consist of two Courses, viz.: (1) The Theory and Use of Astronomical Instruments, together with as much General Astronomy as is requisite to guide the Student in making observations in the field as well as in an observatory; (2) The Utilization of Observations of Comets, &c., in the Computation of Orbits and Ephemerides.

VII. HUMAN ANATOMY, including ANTHROPOLOGY.

PROFESSOR SIR WILLIAM TURNER.

For full Synopsis of Lectures on Anatomy, see under Faculty of Medicine.

ANTHROPOLOGY.

In the event of a sufficient number of Students expressing their intention of selecting Human Anatomy, including Anthropology, as a subject for the Degree of Bachelor of Science, the Professor of Anatomy will be prepared to deliver, during the Summer Session, a course of twenty-five Lectures on Physical Anthropology. Fee, £2, 2s. To Students who take the Summer Course of Practical Anatomy, the fee for this Class of Anthropology is £1, 1s.

VIII. PHYSIOLOGY.

PROFESSOR RUTHERFORD.

For Synopsis of Lectures, see under Faculty of Medicine.

IX. GEOLOGY, including MINERALOGY.

PROFESSOR JAMES GEIKIE.

Winter Course.

I. CLASS OF GEOLOGY AND MINERALOGY.—This Class meets daily, at 4 o'clock. The Course embraces a system of instruction in the following subjects :—

1. *The History of Geology*—An outline of the growth of the science from the time of the early cosmogonies downwards.

2. *Dynamical Geology*—A discussion of the nature and causes of geological changes effected on the surface and within the interior of the earth.

3. *Mineralogy*—An account of the physical and chemical characters of minerals, and a description of some of the more important and typical species in the various mineral groups.

4. *Petrology*—A description of the various families of rocks.

5. *Structural Geology*—A description of the geological structure and relations of rock-masses to each other.

6. *Palæontological Geology*—An account of the nature and use of fossils in geological inquiry.

7. *Historical Geology*—The history of the successive geological periods.

8. *Physiographical Geology*—An inquiry into the origin of the present outlines of the earth's surface.

Text-Books—"Outlines of Geology," by the Professor (*Stanford*); Hatch's "Mineralogy" (*Whittaker*); Hatch's "Petrology" (*Sonnenschein*). More detailed works of reference, most of which are in the College Reading-Room, are recommended for each branch of the lectures.

II. Class of Practical Mineralogy and Geology.—This Class meets for two hours (2 to 4), on Mondays, Wednesdays and Fridays, under the superintendence of Professor Geikie.

III. Field Demonstrations.—Short excursions are made on Saturdays to places of geological interest in the neighbourhood of Edinburgh, when the Class Lectures are illustrated by demonstrations in the field, and practical instruction is given in Geological Surveying. At the close of the Session (usually in the last week of April) an excursion, extending over a week or thereabout, may be made for the purpose of examining the structure of a more distant district.

These Field Demonstrations are open to Students attending either the Class Lectures or the Practical Class.

Adjoining the Geology Class-room there is a small Museum exhibiting the characters of minerals and rocks, and the typical fossils of the different geological systems.

Summer Course.

The following subjects are dealt with in this Course :—

1. *Petrology.*—(The lectures are illustrated by demonstrations in the Laboratory and the Class Museum.)

2. *Palæontological Geology.*—(A collection of the typical fossils of the different formations occurring in Britain will be found in the Class Museum.)

3. *Structural Geology.*—Under this head *Dynamical Geology* is discussed in more or less detail.

4. *Geological Surveying.*

5. *Economic Geology: application of Geology to Mining, Engineering, Agriculture, Public Health, &c.*

6. *Physiographical Geology.*

Structural and *Field Geology* form the principal portion of this Course, but no previous knowledge of Geology is required on the part of the student—the elementary principles upon which the science is based being set forth both in the lecture-room and the field. The Class meets on Mondays, Wednesdays, and Fridays at 4 o'clock, and a series of practical lessons on the study of rocks will be given at the commencement of the Session on Tuesdays and Thursdays at the same hour. The Saturdays are devoted to field demonstrations, when the mode of geological mapping and section-drawing is explained and illustrated.

IV.—APPLIED SCIENCE.

I.—ENGINEERING.

I. MATHEMATICS.

PROFESSOR CHRYSTAL.

For Synopsis of Lectures, see under Faculty of Arts.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures on Natural Philosophy, &c., see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Courses, see under Faculty of Medicine.

IV. DYNAMICS.

C. G. KNOTT, D.Sc., LECTURER.

A complete Advanced Science Course on Dynamics, of at least Fifty lectures, will be given by the Lecturer on Applied Mathe-

matics. This course is adapted for the needs of Engineering Students. In the treatment of the subject practical applications and, in particular, graphical methods of solution will receive attention ; while the simpler processes only of the differential and integral calculus will be made use of. The Course will include the Kinematics, Kinetics, and Statics, of particles, rigid solids, flexible cords, and perfect fluids ; and the more elementary parts of Strains and Elasticity.

Books recommended.—The simpler sections of the Article *Mechanics* in the last edition of the *Encyc. Brit.* ; Rankine's *Applied Mechanics.*

V. ENGINEERING.

PROFESSOR ARMSTRONG.

Winter Session.

I. CLASS OF ENGINEERING.—The Object of the Course will be to show the practical application of Science to some branches of Engineering. The Series of Lectures will form a Two Years' Course, so arranged that Students can enter the Class at the beginning of either year. The following are the subdivisions of the subject-matter of the complete Course, a part only of each subdivision being dealt with each year :—

1. Applied Mechanics ; 2. One Branch of Civil Engineering ; 3. One Branch of Mechanical Engineering ; 4. A Series of Examples of the Application of Machinery to Manufacturing Purposes.

Synopsis of the Lectures for the present Session :—

1. Principles of Statics ; couples ; moments of forces ; parallel and inclined forces ; centre of gravity ; moment of inertia ; friction.

2. Equilibrium and stability of frames, ribs, and linear arches.

3. Strength of materials : stretching, crushing, bending, and twisting.

4. Application of mechanical principles to combined structures, especially to roofs and bridges.

5. Earthwork and masonry: retaining walls and masonry arches.

6. Principles of Kinetics. Newton's laws of motion. Conservation and transformation of energy.

7. Application of principles of Kinetics to prime movers: especially to the steam engine.

8. Theory of heat engines.

9. Elements of machine design.

Four Examinations are held during the Session; and each week, unless there be an Examination, exercises are given to be worked at home. The questions set are such as are met with in the practice of Engineering; and the papers being returned to the Students, annotated and corrected, form a body of Examples for subsequent reference.

Engineering Works and Factories will be visited by the Class, under the guidance of the Professor.

II. Class of Geometrical, Mechanical, and Architectural Drawing.—Students can attend this Class at any time between the hours of 10 A.M. and 2 P.M. each day. Work will be examined and instructions given by the Professor at 10 A.M. At other times the Class will be in charge of an Assistant.

All Students are recommended to take the Classes in Engineering and Drawing together.

The Class in Drawing may also be attended with advantage by those who propose in subsequent years to attend the Class in Engineering, as it is of great importance that Students should be able to readily understand mechanical diagrams, and to apply the graphic methods of calculation frequently employed by Engineers.

Instruction is given in the elements of Geometrical Drawing, the making of figured sketches from actual measurements, and subsequently in the Design and preparation of Working Drawings of Structures and Machines.

III. Additional Courses.—Short courses of lectures on special subjects treated in detail, will be given from time to time.

During the present Session there will be such a course of about twenty lectures, the subject of which will be duly announced.

IV. TUTORIAL CLASS.—A Tutorial Class, at which the questions proposed in the Weekly Exercises are discussed and explained, is held each week.

There is no extra Fee required for either of the foregoing (III. and IV.) from Students attending the Ordinary Class in Engineering (I.).

V. THE FULTON ENGINEERING LABORATORY.—In this Laboratory Students receive practical instruction in the processes employed by the Engineer in the experimental determination of the physical and economical constants of materials machines, and prime movers, and in the practical application of electricity.

VI. A COURSE OF INSTRUCTION (Theoretical and Practical) IN SANITARY ENGINEERING, MENSURATION, AND DRAWING, designed to meet the requirements of Candidates for Degrees in Public Health.

Summer Session.

VII. ENGINEERING FIELD-WORK.—A course of Practical Instruction in Surveying, Levelling, Setting Out, and Calculation of Quantities, is given during the Summer Session.

The course consists of lectures, and of practical work, as undertaken in the field and in the office, and occupies the whole of each day for about three weeks. The number of hours during which instruction is given is thus made to correspond to an ordinary Course extending over a much longer period.

Course of Study.

The following course of study is recommended :—

1st Year.—Mathematics (1st Class), Geometrical Drawing, Chemistry, Engineering Field-Work, Geology (Summer Session).

2d Year.—Mathematics (2nd Class), Natural Philosophy, Engineering, Mechanical Drawing.

3d Year.—Natural Philosophy (Advanced Class), Engineering and Drawing.

If the Student is sufficiently well prepared, some modification of the foregoing may be found desirable.

For particulars of Scholarships, &c., tenable in connection with the Department of Engineering, see SCHOLARSHIPS (Arts, &c.).

A detailed Syllabus of the Lectures and Courses of Instruction in the Department of Engineering is issued annually, and may be had on application.

VI. GEOLOGY, including MINERALOGY.

PROFESSOR JAMES GEIKIE.

For Synopsis of Lectures, see Summer Course under Pure Science.

II.—PUBLIC HEALTH.

I. LABORATORY WORK.

PROFESSOR SIR DOUGLAS MACLAGAN.

See Schedule, page 368.

II. CLINICAL INSTRUCTION regarding Fevers and Infectious Diseases during three months in a recognised Hospital.

III. INSTRUCTION IN MENSURATION AND DRAWING.—Three months under a recognised Teacher.

See Special Course by Professor Armstrong in Sanitary Engineering and Drawing, page 340.

IV. PHYSICS.

PROFESSOR TAIT.

For Synopses, see under Faculties of Arts and Medicine.

V. GEOLOGY.

PROFESSOR GEIKIE.

For Synopsis of Courses, see under Pure Science.

VI. PUBLIC HEALTH.

(*a*) PRACTICAL SANITATION, SANITATION, AND HYGIENE.

PROFESSOR SIR DOUGLAS MACLAGAN.

For Synopsis of Courses, see under Faculty of Medicine.

(*b*) SANITARY ENGINEERING, BUILDING CONSTRUCTON, ETC.

PROFESSOR ARMSTRONG.

Special Course, see under Engineering.

III.—AGRICULTURE.

I*a*. MATHEMATICS.

PROFESSOR CHRYSTAL.

For Synopsis of Lectures, see under Faculty of Arts.

I*b*. ZOOLOGY.

PROFESSOR EWART.

For Synopsis of Lectures, see under Faculty of Medicine.

I*c*. BOTANY.

PROFESSOR BALFOUR.

For Synopsis of Lectures, see under Faculty of Medicine.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Lectures, see under Faculty of Medicine.

IV. AGRICULTURE AND RURAL ECONOMY.

PROFESSOR WALLACE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic

Nitrogen. Indications of good or bad Soils—the different Methods of Management and Improvement.

3. *Drainage.*—Its Practice and Advantages—Irrigation—Wet-Warping—Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—The Importance of their proper Construction and careful Management.

5. *Steam Cultivation.*—Its Advantages and Disadvantages.

6. *The Motive Powers Employed on the Farm.*—1st, Man; 2d, Horse; 3d, The Mechanical Powers (Water, Wind, and Steam)—their Comparative Values and Advantages.

7. *Farm Servants.*—Their Labour and Wages—Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour on different Classes of Farms.

8. *The Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (including Grain, Root, Forage, and Hay Crops).—Their Selection and Cultivation. Insect Injuries and Diseases, and the best Means of Prevention.

10. *Identification of Grasses and other Valuable Pasture Plants.*—Character and Habits of those of importance—Detection of Adulterations of Seeds—Regulations necessary to protect the Farmer in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c. —Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure—its proper Mixing, Storing, and Application—its great advantage as a General Manure. Special Manures and so-called Artificials—their Uses, Abuses, and Adulterations—the proper Times and Methods of their Application. The Value of Liquid Manure and Town Sewage, and how to utilise them.

15. *Buildings and Fences.*—The proper Construction of Fences—the General Arrangement of Farm-Buildings—the

best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c. — Covered Yards — Ventilation— Drainage.

16. *Live-Stock, embracing Cattle, Pigs, Horses, Sheep, Poultry.*—The Various Breeds of each, and suitability of some to Local Conditions—"The Principles of Breeding." Feeding and Management—Cost of Feeding—Proper Mixtures of Food to use. Cost of the Production of a Stone of Beef, Mutton, and Pork, showing the Amount of Profit in each case.

17. *Dairying in all its Branches*, including the suitability or otherwise of surrounding Conditions—the proper Classes of Dairy Stock to keep, and their Management—the Treatment of Milk, and its Sale, or its Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs.*—Suitability of the Common Food Substances to the different Classes of Farm Stock—the Purchase, Storing, and Administration of the same—their Manurial Residues.

Text-Books.—Wallace's "Farm Live Stock of Great Britain," M'Connell's "Note-Book of Agricultural Facts and Figures," J. B. Harris's "Cheese and Butter Making." Fream's "Elements of Agriculture," "Rothamsted Experiments," and "Soils and their Properties," and the books in "Bell's Agricultural Series."

Students are requested to consult with the Professor of Agriculture at the beginning of the Session as to the plan and arrangement of their work.

In connection with the Class there are, in addition to the Medal and First and Second Class Certificates, the Steven Scholarship of about £75 and the Vans Dunlop Scholarship of £300. Particulars will be found under *Scholarships* in the Faculty of Arts. The Highland and Agricultural Society of Scotland gives £10 to be spent on Books for Class Prizes.

Periodical Excursions will be made to some of the best Farms in the Lothians. A Medal may be given to the student who writes the best report of the same.

VI. GEOLOGY.

PROFESSOR GEIKIE.

For Synopsis of Lectures, see Summer Course under Pure Science.

VII. VETERINARY HYGIENE.

Lectures of recognised teachers of the subject.

VIII. AGRICULTURAL ENTOMOLOGY.

Course of 20 *Lectures, with Laboratory Demonstrations.*

STEVEN LECTURER—W. FREAM, LL.D., B.SC. LOND., F.L.S., F.G.S., ETC.

(*Free to Present and Past Students of the Agricultural Class.*)

The position of Insects in the Animal Kingdom.

The morphology and physiology of Insects, particularly in so far as a knowledge of these can be turned to useful account in baffling the attacks of insect pests. The structural modifications of the mouths, legs, and wings of Insects.

The life-history of insects.

Enunciation of the general principle that where the life-history involves a series or cycle of changes, the measures of suppression should be directed against the weakest link in the chain. Illustrations.

Methods of insect attack, and the enormous losses consequent thereon. Incidentally:—

(*a*) The stage in the life-history of the insect at which it becomes actively injurious.

(*b*) The period in the growth of the crop when insect injury begins, and the organs of the plant which are attacked.

Methods of *prevention* of insect attack, as distinguished from methods of *remedy*.

The *general* methods of prevention or remedy, as distinguished from the *special*. The former are, in the main, agricultural. The latter usually involve the application of specific insecticides, or the subjection of the crop to a course of treatment distinct from ordinary agricultural operations.

Insecticides : the composition and properties of the more important. The methods of application.

IX. ECONOMIC SCIENCE AS APPLIED TO AGRICULTURE.

PROFESSOR NICHOLSON.

The Lectures in Political Economy up to Christmas. For Synopsis, see under Faculty of Arts.

X. (*a.*) FORESTRY.

LECTURER—COLONEL BAILEY.

This class meets on five days a week at 11 A.M. during winter.

1. *Forest Botany*, or the structure and growth of trees.

2. *Structure and Classification of Timber.*

3. *Sylviculture.*—The habit of trees, and their behaviour under the influence of heat, light, moisture ; various classes of soil, &c. ; shape and development of forest trees ; pure and mixed woods ; the more important sylvicultural systems under which trees are grown in masses ; the creation and treatment of woods under these systems.

4. *Mensuration and Valuation.*—Measurement of felled and of growing timber ; enumeration of stock ; periodic increments.

5. *Working Plans*, or the organisation of woods in such a manner that they may best fulfil the objects for which they are maintained ; annual or periodic yield.

6. *Defects and Diseases.*—Injuries, deformities, attacks by fungi.

7. *Damage by Animals and by Insects.*

8. *Utilization of Forest Produce*, including felling, conversion, export, technical properties of timber, and the principal uses to which it is applied.

9. *Forest Fires;* treatment of *Sandhills;* treatment of *Mountain Torrents*, &c.
10. *Utility of Woodlands.*

X. (*b.*) EXPERIMENTAL PHYSICS.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

X. (*c.*) ENGINEERING.

PROFESSOR ARMSTRONG.

For Synopsis of Lectures, see under Graduation in Engineering.

XI. ENGINEERING FIELD WORK.

PROFESSOR ARMSTRONG.

For Synopsis of Lectures, see under Graduation in Engineering

Graduation in Science.

I.—PURE SCIENCE.

A.—Regulations and Curricula applicable to all who commenced attendance on Science Classes after 1st October 1892.

For those who commenced attendance on qualifying Science Classes before 1st October 1892, *see Regulations, page* 382.

Two Degrees in Science are conferred by the University of Edinburgh, viz.:—Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.). These degrees are given in Pure Science and in Applied Science.

QUALIFICATIONS REQUIRED OF CANDIDATES.

I.—Preliminary Examination.

The Preliminary Examinations in General Education are held in the Examination Hall in the University, in autumn and spring.

(*See Time-Table of Examinations, page* 397.)

All Candidates are required to enter their names *in full* in a book, kept for the purpose at the Matriculation Office, University (Old Buildings), and at the same time to mention the subject or subjects in which they offer themselves for Examination. They are also required to state whether they have before appeared for any Preliminary Examinations at this University. The Fee for the Preliminary Examination is 10s. 6d. for each appearance.

Candidates who intend to present themselves for Examination may obtain Schedules at the Matriculation Office, which must be completed and lodged and the Fees paid at that office not later than 21st September 1894 and 20th March 1895 for the Autumn and Spring Examinations respectively.

Candidates who cannot attend personally to pay the Fees should transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered nor Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to be entered for the Examination until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

1. Candidates before entering on the Curriculum must, unless exempted, pass a Preliminary Examination in the following subjects:—[1]

    1. English.
    2. One of the following: — Latin, Greek, French, or German.
    3. Mathematics.
    4. One of the following:—Latin, Greek, French, or German (if not already taken), Italian, Dynamics.

2. Candidates must pass on the higher standard in Mathematics.
3. *English* includes Grammar and Composition, and the Outlines of Geography and British History, the standard being that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.
4. *Latin* and *Greek* comprise grammatical questions, translations into English from Latin or Greek authors, not previously prescribed, and translations of plain passages or easy sentences from English into Latin or Greek. The standard is that presently adopted for the Lower Grade Leaving Certificate.
5. *French*, *German*, and *Italian* comprise grammatical, literary, and easy philosophical questions, translation into English from French, German, or Italian authors, not previously prescribed, and translations from English into French, German, or Italian. The standard is that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.
6. *Mathematics* comprises (1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry—Euclid, Books I., II., III. (or their equivalents), with easy deductions; Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.
7. *Dynamics* includes Elementary Statics and Kinetics of Solids, Liquids, and Gases.
8. A Candidate must pass in all the required subjects at one or not more than two Examinations, provided that he may offer himself for re-examination, as often as may be necessary, to satisfy this condition.
9. Attendance on any Science Class will not qualify for Graduation unless the whole Preliminary Examination has been passed.

[1] See directions of Joint Board, pages 128-131.

II.—Degrees in Pure Science.

1. Candidates for the Degree of Bachelor of Science must, in the course of not less than three Academical years (*i.e.*, three Winter Sessions, or two Winter Sessions, and three Summer Sessions), attend at least seven courses of instruction in the subjects included in the Science Examination which they purpose to undergo.
2. Three of these Courses must be in subjects prescribed for the First Science Examination, and four must be in subjects prescribed for the Final Science Examination.
3. Four of the seven Courses must be taken in the University of Edinburgh. The remaining three Courses may be taken at this University or at other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of Graduation in Science, provided that the fees for attendance at an approved Institution or under a recognised teacher in Edinburgh, shall in all cases not be less than the fees exigible for the corresponding Courses in the University of Edinburgh.[1]
4. Every Candidate for a Degree in Science must produce his Matriculation Ticket for the year in which he appears for Examination or Graduation.
5. All Candidates, not Matriculated Students of this University, availing themselves of the permission to attend Lectures at approved Institutions or by recognised teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names at the Matriculation office, paying a fee of the same amount as the Matriculation Fee, and having, in respect of such payment, a right to the use of the University Library.
6. A Student who before October 1892 has completed a part of his course of study with a view to Graduation in Science under regulations in force at the time in this University, and shall thereafter complete his course of study and pass the necessary Examinations in conformity with such regulations, as with those now in force, may become a Candidate for the Degree of Bachelor of Science.
7. Candidates for Graduation who have previously passed the Examinations are required to intimate to the Clerk to the Senatus their intention to graduate, and pay the Registration fee at least ten days before the date of Graduation. Those whose Examinations are not then completed are required to give such intimation at the earliest possible date, and at latest one clear day before the day of Graduation.

[1] Only Institutions and Teachers with the necessary staff and appliances for Theoretical and Practical Instruction in Science will be recognised by the University. A List of Universities and Institutions at present recognised in terms of this regulation is given on next page.

UNIVERSITIES AND INSTITUTIONS AT PRESENT RECOGNISED IN TERMS OF REGULATION II. 3.

The Universities of St Andrews, Glasgow, Aberdeen, Oxford, Cambridge, Dublin, and Victoria University, Manchester.

The Glasgow and West of Scotland Technical College; University College, Dundee; University College, London; King's College, London; The Royal College of Science, South Kensington; The Owens College, Manchester; The Mason College, Birmingham; The College of Science, Newcastle-on-Tyne; The Yorkshire College of Science, Leeds; University College, Bristol; University College, Liverpool; The Firth College, Sheffield; University College, Nottingham; The University College of North Wales, Bangor; University College of Wales, Aberystwith; The University College of South Wales and Monmouthshire; The Engineering College, Cooper's Hill.

The Queen's College, Belfast; The Queen's College, Cork; The Queen's College, Galway; The College of Science, Stephen's Green, Dublin; The School of Mines, Dublin.

The Presidency Colleges in Calcutta, Madras, and Bombay. The Thomasson Engineering College, and the Engineering College, Poona.

M'Gill University, Montreal; The University College of Toronto; Queen's University, Kingston, Ontario; The University of Sydney; The University of Melbourne; The University of Adelaide; Wellington College; The University of Otago; Dalhousie College, Halifax, Nova Scotia; Stellenbosch College, South Africa.

The University of Harvard; The University of Yale; The Johns Hopkins University.

The Universities, and Polytechnic Schools supported and regulated or recognised by the governments of the respective Countries of Europe.

EXAMINATIONS.

(A.) DEGREE OF BACHELOR OF SCIENCE.

For the Degree of Bachelor of Science there are two Examinations, conducted by written questions, as well as orally and practically.

(*a.*) *First Science Examination.*

1. The First Examination for the Degree of Bachelor of Science is as to the general knowledge of the Candidate on the following subjects, viz. :—

(i.) Mathematics, or Biology (*i.e.*, Zoology and Botany).
(ii.) Natural Philosophy.
(iii.) Chemistry.

2. The Examination in these subjects is the same as for the ordinary degree of Master of Arts.

3. Candidates may present themselves in any one or more of these subjects at any Examination held after they have attended a full course in the subject or subjects professed.

(*b.*) *Second Science Examination.*

1. The Second B.Sc. Examination is on a higher standard in any three or more of the following subjects :—

(i.) Mathematics ; (ii.) Natural Philosophy ; (iii.) Astronomy ; (iv.) Chemistry ; (v.) Human Anatomy, including Anthropology ; (vi.) Physiology, including Histology ; (vii.) Geology, including Mineralogy ; (viii.) Zoology, including Comparative Anatomy ; (ix.) Botany, including Vegetable Physiology.

2. The standard of this Examination is as nearly as possible equivalent to that of the Examination for the Degree of Master of Arts with Honours, where the subjects are different : and where the subjects are the same the examination is identical.

3. A subject already taken for the First Examination may be taken also for the Second Examination.

4. Candidates presenting themselves for the Second Examination must have attended four full courses of higher instruction, including practical or laboratory work, in the Subjects professed.

In each subject professed, a *first* and a *second* paper are set ; and the Practical and Oral Examination also consists of *first* and *second* parts. Candidates must pass the first section of the Examination (Written, Practical, and Oral) in all the subjects professed. They are also required to pass the second section of the Examination in at least one of their subjects.

5. The Second Science Examination cannot be taken sooner than one year after the Candidate has passed the First Science Examination. Candidates who fail in one or more subjects must reappear in all the subjects.

6. If a student, before passing the Preliminary Examination has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for examination, on condition of his passing the full Preliminary Examination within such time as the Senatus may appoint.

7. A Candidate for the degree of Bachelor of Science is not deemed to have attended a class as part of the curriculum for that degree unless he presents a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

8. The Examiners for the degree of Bachelor of Science have power to report that a Candidate has passed with special distinction in one or more of the subjects professed by him : and in such a case a Diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

9. A Candidate who has passed the First and Second Science Examinations, and otherwise complied with the regulations for Graduation, will be recommended to the Senatus for the Degree of Bachelor of Science.

(B.) Degree of Doctor of Science.

1. Graduates of this University who have held the Degree of Bachelor of Science for a term of five years may offer themselves for the Degree of Doctor of Science.

2. A Candidate for the Degree of Doctor of Science must profess one of the following branches of Science:—Mathematics; Natural Philosophy; Astronomy; Chemistry; Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Comparative Anatomy; Botany, including Vegetable Physiology; and in it he will be expected to show a thorough knowledge.

3. He must submit a Thesis or a published Memoir or Work, to be approved by the Senatus. The Thesis, Memoir, or Work, must be a record of original research undertaken by the Candidate, and must be accompanied by a Declaration, signed by him, that the work has been done and the account of it composed by himself.

The Thesis must be sent to the *Dean of the Faculty of Science* on or before 30th April in the year in which the Candidate proposes to graduate.

The Candidate, if required by the Senatus, must pass such an examination as may from time to time be determined.

Regulation regarding the Instruction and Examination of Women in Chemistry, Botany, and Zoology for Graduation in Science.

Any woman who has received the requisite instruction in Chemistry, Botany, and Zoology, in any other University or Institution already approved by the University with the view to the Graduation of men, or under any teacher already recognised with that view, or in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will—subject to the provisions of Ordinance[1] No. 18, General No. 9, Regulations for the Graduation of Women, &c.—be admitted to Examination in these subjects for Graduation in Science.

Any woman, not a Matriculated Student of the University, availing herself of the permission to attend the Lectures on Chemistry, Botany, or Natural History, at the above-named Schools of Medicine in Edinburgh, must, at the commencement of each year of such attendance, enrol her name in a book to

[1] See Ordinance, Appendix to Calendar, 1892-93, page 51.

be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

OUTLINE OF SUBJECTS OF EXAMINATION FOR DEGREES IN SCIENCE.

I.—First Examination for the Degree of B.Sc. in Pure Science.

The Examinations in Mathematics and in Natural Philosophy are the same as for the Degree of Master of Arts. See page 143.

(*c*) CHEMISTRY.

The Examinations in Zoology, Botany, and Chemistry, are the same as for the First Professional Examination for Degrees in Medicine. See page 585.

II.—Final Examination.

The following are the Courses in this University qualifying for the Final Examination in Pure Science :—

1. Mathematics : (1) *Intermediate Course*, as for Honours in Arts. (2) *Advanced Course*, as for Honours in Arts.

2. Natural Philosophy : (1) Advanced Mathematical, (2) Advanced Experimental, or (3) Special Laboratory Course.

3. Astronomy : (1) and (2), Advanced Courses of Practical Instruction at the Observatory.

4. Chemistry : (1) *Intermediate Course*, one Winter Course, or two Summer Courses, in Laboratory. (2) *Advanced Course :* Further Laboratory Work and one Lecture Course.

5. Human Anatomy, including Anthropology : (1) *Intermediate Course :* Six months' Lectures on Systematic Anatomy (Winter Session), with six months' Practical Anatomy. (2) *Advanced Course :* Course of Anthropology.

6. Physiology : (1) *Intermediate Course ;* Six months' Lecture Course and Practical Work (Winter Session). (2) *Advanced Course :* Laboratory Work.

7. Geology, including Mineralogy : (1) *Intermediate Course :* Winter Lecture Course and Practical Class. (2) *Advanced Course :* Laboratory Work, or Advanced Lecture Course.

8. Zoology, including Comparative Anatomy : (1) *Intermediate Course :* Six months' Course, including Lectures on Invertebrate Zoology and on Embryology, and Laboratory Work. (2) *Advanced Course :* Six months' Course on the Morphology of the Invertebrata and Vertebrata, and Laboratory Work.

9. Botany, including Vegetable Physiology : (1) *Intermediate Course :* Six months' work in Laboratory. (2) *Advanced Course :* Laboratory Work, with one or more Lecture Courses.

(*c*) ASTRONOMY.

1. The Principles and Practice of astronomically finding the geographical co-ordinates of the place of observation on land and at sea.

2. The Principles that guide the actual determination of the chief astronomical constants—*refraction*, *aberration*, *nutation*, *precession*, and *solar-parallax* in fixed observatories.

3. An account of the methods used for determining the figure and size of the earth.

The Candidate will be required to explain the general principles on which the orbits of planets, etc., are calculated, and must show a thorough knowledge of the methods followed in the case either of a *comet*, *planet*, *double-star*, or of a *meteorite* and a *meteoritic swarm*.

One group of observations must have been made in the field, or at an observatory, and fully reduced so as to show the value of the derived results, and the precautions that have been taken to free them from instrumental and personal errors. Candidates will also be examined as to the best ways of testing the critical parts of instruments, such as a *pivot*, *screw*, *level*, etc.

(*d*) CHEMISTRY.

Inorganic Chemistry.

Organic Chemistry.

Relation between Chemical and Physical Properties.

Complex Qualitative Analysis, Simple Quantitative Determinations, Elementary Gas Analysis, and the preparation of pure reagents. [*This part of the Examination will be conducted practically.*]

(*e*) HUMAN ANATOMY, INCLUDING ANTHROPOLOGY.

Candidates are required to show a competent knowledge of the development of the human body and of its parts and organs; also the position and general arrangement of the different "systems" of organs which enter into its construction, and the structure both of these organs and of the simple tissues. A special knowledge of the locomotory apparatus and of the nervous and vascular systems will be required. It should be understood that an acquaintance with the technical applications of human anatomy to the practice of Medicine and Surgery is not asked for.

The Anthropological part of the subject will embrace a knowledge of race characters as found in the skull and other parts of the skeleton, in the skin, eyes, hair, features, and the external configuration of the body generally. The methods of anthropometrical measurement both of the living body and of the skeleton should be known. The possible influence of use and of external surroundings in producing modifications in the physical characters of man will require attention. An acquaintance with the "types" of mankind and the structural relations of man to the higher mammals will also be expected.

(*f*) ANIMAL PHYSIOLOGY.

The general Chemical Composition of the Animal Body. The Physiology of the Cell. The Structure, Development and Physiology of the Simple Tissues, including Bone and Tooth. The Phenomena of Nutrition, including Food, Insalivation, Digestion, Absorption, Blood, Circulation, Respiration, the Immediate Nutrition of the Tissues, Excretion, the Balance of Nutrition, together with the minute structure of the organs concerned. The Production of Animal Heat and the Regulation of the Temperature of the Body. The Mechanism of Voice and Speech. The Organs of Sense and their Functions. The Special Physiology of the Spinal and Cranial Nerves in Mammals, and of the Brain and Spinal Cord in Man and other Vertebrates, including the Minute Structure of the Spinal Cord, Medulla oblongata and Cortex of the Cerebrum and Cerebellum of a Mammal.

Oral and Practical Examination.—Each Candidate will be examined on any of the above subjects; and he will be required—

1. To examine and describe specimens of Animal Tissues and Organs;
2. To make microscopical preparations of Animal Tissues and Organs;
3. To show his practical acquaintance with the chemistry of Albumin and its Allies, Carbohydrates, Milk, Blood, the Digestive Juices, and their effects, also with the practical chemistry of Bile and Urine;
4. To show his practical acquaintance with the chief Physiological Instruments, and the manner in which they are employed.
5. To show his practical acquaintance with the chief experiments by which Physiological Knowledge has been obtained.

(*g*) GEOLOGY, INCLUDING MINERALOGY.

1. *Dynamical Geology.*—The nature and operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.
2. *Mineralogy.*—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.
3. *Petrology.*—Macroscopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.
4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.
5. *Stratigraphical Geology.*—The History of the Geological Systems—more especially those of the British Islands.
6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders found fossil in Britain.
7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

(*h*) ZOOLOGY, INCLUDING COMPARATIVE ANATOMY.

1. A Knowledge of the Systematic Zoology of the Invertebrate and Vertebrate groups.

2. The Elements of the Comparative Anatomy and Development of the Invertebrata and Vertebrata.

3. The Principles of Natural Selection, a Knowledge of the Geographical Distribution of Vertebrate Animals.

The following books are recommended:—Lang's "Text-Book of Comparative Anatomy;" Huxley's "Vertebrata;" Flower and Lyddeker's "Mammalia;" Vogt and Yung's, Practical Zootomy (German or French edition); Darwin's "Origin of Species;" Wallace's "Darwinism" and "Island Life;" Marshall's "Embryology."

(*i*) 1. BOTANY, INCLUDING VEGETABLE PHYSIOLOGY.

1.—MORPHOLOGY.

1. (*a.*) General:—Doctrine of the Cell; its historical development. Structure of the Cell; its forms and patterns Protoplasm, the nucleus and nucleolus, plastids. Substances in protoplasm. Forms of cell-formation. Tissues, their kinds and formation. Primary disposition of tissues. Secondary changes in tissues and growth in thickness. Differentiation of the plant into members, the relationships of the members, their development. Branching, its forms. Metamorphosis of members, and the spiral theory. Special features of the flower; its development. Fruits, their forms and development. Buds and their modifications; their development. Hairs. Sporangia and their modifications and development. The Seed, its structure and development. Sexual organs, their forms and development.

(*b.*) Special (1)—The principal facts in the life-history of the following:—Gomphonema, Fuligo, Protococcus, Nostoc, Bacterium, Vaucheria, Pandorina, Pediastrum, Œdogonium, Coleochœte, Spirogyra, Closterium, Chara, Laminaria, Fucus, Polysiphonia, Nemalion, Dudresnaya, Batrachospermum, Corallina, Protomyces, Entyloma, Mucor, Pythium, Saprolegnia, Podosphaera, Eurotium, Penicillium, Polystigma, Xylaria, Claviceps, Ascobolus, Tuber, Saccharomyces, Collema, Usnea, Parmelia, Puccinia, Endophyllum, Agaricus, Phallus, Anthoceros, Radula, Riccia, Marchantia, Sphagnum, Andreæa, Funaria, Polytrichum, Hymenophyllum, Aspidium, Osmunda, Salvinia, Pilularia, Marsilea, Isöetes, Ophioglossum, Marattia, Equisetum, Lycopodium, Selaginella, Cycas, Pinus, Taxus, Avena, Scilla, Dracæna, Orchis, Ulmus, Digitalis, Helianthus, Vicia, Capsella. Details not of obvious significance from the point of view of Comparative Morphology, will not be required.

(2) The flower and fruit characters of the following Natural Orders:—Coniferæ, Cycadaceæ, Gramineæ, Cyperaceæ, Alismaceæ, Aroideæ,

Palmæ, Juncaceæ, Liliaceæ, Amaryllideæ, Irideæ, Scitamineæ, Orchideæ, Salicineæ, Cupuliferæ, Urticeae, Euphorbiaceæ, Loranthaceæ, Thymeleaceæ, Polygonaceæ, Chenopodiaceæ, Labiatæ, Acanthaceæ, Scrophularineæ, Solanaceæ, Convolvulaceæ, Borragineæ, Polemoniaceæ, Gentianeæ, Asclepiadeæ, Apocynaceæ, Primulaceæ, Ericaceæ, Vacciniaceæ, Campanulaceæ, Compositæ, Dipsaceæ, Valerianeæ, Rubiaceæ, Caprifoliaceæ, Umbelliferæ, Cacteæ, Cucurbitaceæ, Myrtaceæ, Saxifragaceæ, Rosaceæ, Leguminosæ, Sapindaceæ, Rhamneæ, Ilicineæ, Rutaceæ, Geraniaceæ, Lineæ, Tiliaceæ, Malvaceæ, Hypericineæ, Caryophylleæ, Polygaleæ, Violarieæ, Resedaceæ, Cruciferæ, Papaveraceæ, Nymphæaceæ, Berberideæ, Ranunculaceæ.

Candidates will be expected to be able to draw floral diagrams showing the relations of parts of the flowers in those orders, and to be acquainted with the theoretical explanations of the more important anomalous and divergent types belonging to them. This section, 2, will be especially dealt with in the practical examination, and need not form part of the written examination.

2.—Taxonomy.

Principles of plant classification. The History of its development and the influence upon it of the dogma of the constancy of species, and of descent. The methods associated with the names of—Cesalpino, Ray, Linnaeus, de Jussieu, de Candolle, Brown, Hofmeister, Hooker.

3.—Distribution.

The elements which determine distribution and dispersion of plants. The leading facts of geographical distribution. Theories of Insular and mountain Floras. The leading facts of palaeophytology, and their bearing on the theory of descent.

4.—Physiology.

Sustentative function of plants. Materials of plant food, their sources. Absorption of food-material; its synthesis and distribution in the plant. Parasitism. Saprophytism. Metabolism. Vegetable digestion and assimilation. Respiration. Transpiration. Movement of gases and liquids in plants. Growth. Properties of growing parts. Conditions requisite for and affecting growth. Germination. Correlation of growth. Irritability and Contractility of protoplasm. The adaptation of tissues and members to function. Reproductive function of plants; history of the subject. Agamogenesis and Gamogenesis. Embryogeny. Alternation of generations. Apogamy and Parthenogenesis; Apospory. Self and Cross fertilisation and the theory of fertilisation. Hybridism. Variation. Heredity. Special phenomena in flowering plants.

DOCTOR OF SCIENCE EXAMINATION.

I. MATHEMATICS.

The candidate will be required to show very high attainments in two at least of the following subjects :—

1. Pure Geometry, including Modern Geometry and Trigonometry.
2. Analytical Geometry.
3. Algebra, including Higher Algebra and the Theory of Numbers.
4. The Differential and Integral Calculus generally.
5. Special departments, such as the Calculus of Variations, Quaternions, &c.

II. NATURAL PHILOSOPHY.

Candidates who select Physics or Applied Mathematics are required to pass a searching examination in one of the following nine subjects or groups of subjects, and to shew more than a mere elementary knowledge of at least two others :—

(A.) APPLIED MATHEMATICS.

1. *Abstract Dynamics*, including *Kinematics*.
2. *Acoustics* and *Theory of Light*.
3. *Conservation of Energy* including the *Dynamical Theory of Heat*.
4. *Electricity*, including the mathematical theories of *Static and Voltaic Electricity*, *Induction*, *Magnetism*, *and Electro-Magnetism*.
5. *Physical Astronomy*, including the *Lunar and Planetary Theories*, the *Figure of the Earth*, *Precession*, *and Nutation*.

(B.) EXPERIMENTAL PHYSICS.

6. *Properties of Matter*.
7. *Sound and Light*.
8. *Heat and Energy* (generally).
9. *Electricity*, *Magnetism*, &c.

III. ASTRONOMY.

1. The Principles and Practice of astronomically finding the geographical co-ordinates of the place of observation on land and at sea.

2. The Principles that guide the actual determination of the chief astronomical constants of *refraction*, *aberration*, *nutation*, *precession*, and *solar-parallax* in fixed observatories.

3. An account of the methods hitherto used for determining the figure and size of the earth.

One group of observations must have been made in the field, or at an observatory, and fully reduced so as to show the value of the derived results, and the precautions that have been taken to free them from instrumental and personal errors. Candidates will also be examined as to the best ways of testing the critical parts of instruments, such as a *pivot*, *screw*, *level*, &c.

IV. CHEMISTRY.

The candidate will be required to pass a searching examination in one of the following branches :—

1. The Chemistry and Chemical Technology of Inorganic Bodies, including Metallurgy.
2. Organic Chemistry.

And to show a thorough practical acquaintance with Chemical Analysis in all its branches, and with the preparation of pure substances.

V. HUMAN ANATOMY, INCLUDING ANTHROPOLOGY.

The same subjects as for the degree of Bachelor of Science, with a special knowledge of the development of the Human Body and of Anthropology.

VI. ANIMAL PHYSIOLOGY.

The candidate will be expected to show a thorough knowledge of Human Physiology, together with the Comparative Physiology of the Nervous System. He will also be expected to show an extensive practical knowledge of Histology, Physiological Chemistry, and Experimental Physiology, and will be required to perform some of the chief physiological experiments which do not involve production of pain.

VII. GEOLOGY, INCLUDING PALÆONTOLOGY AND MINERALOGY.

In addition to a more searching test of the knowledge of the subjects prescribed for the Second Bachelor of Science Examination, Candidates will be required to show some acquaintance with the Geology and Palæontology of foreign countries as well as of the British Islands. It will be necessary that they evince sound practical knowledge. To test their acquirements in this respect, they will be asked to identify and describe specimens of minerals, rocks, and fossils placed before them ; and from a geological map, which will be furnished to them, to write a paper (with sections) on the geology of the district to which the map refers.

VIII. ZOOLOGY AND COMPARATIVE ANATOMY.

The same subjects as for the Bachelor of Science Examination, along with a competent knowledge of the structure, development, and classification of a special group to be selected by the Candidate and approved by the Examiner.

IX. BOTANY.

The Candidate will be required to pass a searching examination in one of the following branches :—

1. Morphology.
2. Physiology.
3. Taxonomy and Distribution,

and to show a competent knowledge of the two others. He will be expected to show a thorough practical knowledge of the branch he selects, and will also be examined practically in the other two.

II.—ENGINEERING.

B.—Regulations and Curriculum applicable to all who commence attendance on Science Classes after 1st October 1893.

For those who commenced attendance on qualifying Science Classes before 1st October 1893, *see Regulations, page* 386.

I. Two degrees in Science in Engineering are conferred by the University of Edinburgh—viz., Bachelor of Science in Engineering and Doctor of Science in Engineering.

I.—Preliminary Examination for Bachelor of Science.

II. Every candidate for the degree of Bachelor of Science in Engineering must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science, and the conditions with respect thereto imposed by the Regulations for Degrees in Pure Science are applicable in all respects to Degrees in Engineering except as follows—viz., the Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

II.—Courses of Instruction.

III. (1) Candidates must, in the course of not less than three Academical years (*i.e.*, three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least the eleven courses of instruction prescribed under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time which of the said courses are full and which are half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Edinburgh, and must include the necessary courses in Engineering, except where the University Court, after consultation with the Senatus, sees fit to allow one of the courses in Engineering to be taken outside the University under the provisions of the immediately succeeding subsection.

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Engineering:[2] Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there are not less than the fees exigible for the corresponding courses in the University of Edinburgh.

[1] See pages 349.
[2] See footnote, page 350.

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved institutions or by recognised teachers in Edinburgh to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Senatus a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science to be hereafter constituted in the University, for its consideration, a syllabuses of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabuses, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved Institutions or recognised teachers outside Edinburgh ; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh.

VIII. The subjects of study are as follows :—

1. Mathematics, including Analytical Geometry, and Differential and Integral Calculus.
2. Natural Philosophy, including Applied Higher Mathematics.
3. Chemistry.
4. A course in the Physical Laboratory or in the Chemical Laboratory, or of Practical Chemistry.

5, 6. Two Courses in Practical work in Drawing.

7, 8, 9. Three Courses in Engineering, including Engineering Laboratory Practice, and Field Work.

10. Natural Philosophy, involving Higher Mathematics.

11. One of the following :—

- (*a*) Engineering Laboratory Practice, Mechanical or Electrical (Special Course).[1]
- (*b*) Electricity—Pure and Applied.
- (*c*) Geology and Mineralogy.

III.—Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects, viz.:—(1) Mathematics, (2) Natural Philosophy, (3)

[1] Extra Academical Lecturers whose Courses qualify *pro tanto* for Graduation in Engineering, Andrew Jamieson, M. Inst. C.E., Technical College, Glasgow, Laboratory Courses in Electrical Engineering, 16th April 1894.

Chemistry; and the examinations in Natural Philosophy, and in Chemistry are so far as possible practical.

The examination in Geometrical Drawing may be taken either at the First or at the Final Science Examination.

(2) The examination in Mathematics includes the higher branches of Mathematics specified under Mathematics in the Section immediately preceding; but it is optional to Candidates to pass the same examination in this subject as that required for the ordinary Degree of Master of Arts, provided that in that case they will be required, before graduation, to pass an examination in the remainder of the subject.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

(*b.*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects specified in Section VIII. hereof; and, if required, in the higher branches of Mathematics as provided in Section IX., Subsection 2 hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the whole of the subjects comprised in the First Science Examination and have attended the required courses in the subjects professed, provided that for this purpose subjects 5, 6, 7, 8, and 9, specified in Section VIII., shall form one subject.

XI. A candidate for the degree of Bachelor of Science in Engineering is not deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XII. It is competent to the Examiners for the degree of Bachelor of Science in Engineering to report that a candidate has passed with special distinction in one or more of the subjects professed by him; and in such a case a diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

XIII. It is competent to the University Court of the University of Edinburgh to modify from time to time the provisions as to curriculum hereinbefore contained, in case such modification may be rendered desirable by the development of Engineering Science, or in consequence of further provisions having been made within or without the University for the study of any branch of the said Science: Provided that in no case shall the number of full courses of study required be less than the number required for the degree of Bachelor of Science in Pure Science, as specified in the Regulations therefor.

IV.—Doctorate of Science in Engineering.

XIV. Graduates of the University of Edinburgh who have held the degree of Bachelor of Science in Engineering for a term of five years, may offer themselves for the degree of Doctor of Science in Engineering in the said University.

XV. A Candidate for the degree of Doctor of Science in Engineering must present a Thesis or a published memoir or work to be approved by the Senatus on the recommendation of the Faculty of Science: Provided that, if required by the Senatus, the candidate must pass such an examination as may from time to time be determined. The Thesis must be a record of original research undertaken by the candidate, or of important engineering work designed by himself, and actually carried out, and must be accompanied by a declaration, signed by him, that these conditions have been satisfied.

General.

XVI. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, will be entitled to receive the degrees of Bachelor of Science in Engineering and Doctor of Science in Engineering, as the case may be, on the payment of the fees required.

XVII. A student who, at the time when these Regulations come into operation, has completed a part of his course of study with a view to graduation in Science in Engineering in the University of Edinburgh, under regulations in force at the time therein, and who thereafter completes his course of study and passes the necessary examinations in conformity with such regulations, or with the provisions hereof, may become a Candidate for the degree of Bachelor of Science in Engineering.

XVIII. The degrees of Bachelor and Doctor of Science in Engineering is in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and is not conferred *honoris causâ tantum*.

FIRST BACHELOR OF SCIENCE EXAMINATION.

Outline of Subjects of Examination.[1]

1. Mathematics, including Analytical Geometry and Differential and Integral Calculus.
2. Natural Philosophy, mainly Practical Physics.
3. Chemistry—Same as for First Examination in Pure Science.

[1] Candidates may appear for one or more subjects at a time.

SECOND BACHELOR OF SCIENCE EXAMINATIONS.

1. (*a.*) ENGINEERING—

Field-Work. — Surveying; Levelling; Setting out of Work; Calculation of Quantities.

Properties of Materials.—General Properties, with special knowledge of their Strength, and the Purposes to which they are applied, and some knowledge of their Cost.

Strength and Stability of Structures Designed by Civil Engineers.—Metal and Timber Bridges and Roofs. Arches in Masonry. Walls. Retaining Walls. Embankments. Cuttings. Breakwaters. Aqueducts. Pipes. Canals.

Strength and Form of the Elements of Machines.

Design of Combined Structures.—An elementary knowledge of the Design of Bridges and Roofs, of Reservoirs, Embankments, collecting and distributing Machinery of Waterworks, and of the main features of Railway construction, Harbours, and Drainage.

Design of Machinery.—An elementary knowledge of the construction of the Steam Engine, stationary and locomotive, of Prime Movers driven by Water, of Mill-wright work, and the general arrangement of Workshops and Factories.

Prime Movers.—Theory of Heat Engine. The Hot Air Engine. The Steam Engine. The Gas Engine. Turbines and Water Wheels. *Power Transmission* — Telodynamic, Hydraulic, Electric.

Engineering Laboratory Practice.

1. (*b*). DRAWING—(If not partly taken at the First B.Sc. Examination). Candidates must exhibit a good knowledge of Geometrical Drawing, and be able to represent neatly, in the usual manner employed by engineers, Plans and Sections of Buildings and Machinery, and also to make Engineering Sketches with figured dimensions from actual objects.

2. NATURAL PHILOSOPHY—

Mathematical Physics.

3. (*a.*) ENGINEERING LABORATORY PRACTICE, MECHANICAL OR ELECTRICAL.

(*b.*) ELECTRICITY—PURE AND APPLIED.

(*c.*) GEOLOGY AND MINERALOGY—

Dynamical Geology.—The nature and operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movement of the Earth's Crust.

Mineralogy.—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.

Petrology.—Macroscopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.

Structural Geology.—Structure of Rock-Masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

Physiographical Geology.—Origin of the present outlines of the Earth's surface.

DOCTOR OF SCIENCE EXAMINATION.

A Candidate for this Degree will be required to offer a thesis or published memoir affording evidence of original work, and may also be required to pass a Special Examination.

III.—PUBLIC HEALTH.

C.—Regulations and Curriculum for Degrees in Public Health, applicable to all who commence attendance in Science Classes after 1st October 1894.

For those who commenced attendance on qualifying Science Classes before 1st October 1894, *see Regulations, page* 389.

I. Two degrees in Science in Public Health are conferred by the University of Edinburgh, viz., Bachelor of Science in Public Health and Doctor of Science in Public Health.

I.—BACHELOR OF SCIENCE.

II. Candidates for the degree of Bachelor of Science in Public Health must be graduates in Medicine of a University of the United Kingdom, or of some other University recognised for the purpose by the University Court of the University of Edinburgh.

III. Candidates must be matriculated for the year in which they appear for examination or graduation.

(A.)—*First Examination.*

IV. Candidates for the degree of Bachelor of Science in Public Health before proceeding to the first examination, must produce evidence (1) that, after their graduation in Medicine, they have worked for at least twenty hours per week during a period of not less than eight months, of which at least five consecutive months must be in the Public Health Laboratory of the University of Edinburgh, and the remainder in the foresaid Laboratory, or in a Public Health Laboratory recognised

for the purpose by the University Court; and (2) that they have attended, either before or after graduation in Medicine, such courses of lectures on (*a*) Physics and (*b*) Geology, either in the University of Edinburgh or elsewhere, as would qualify for graduation in Science or Arts in the said University.

(B.)—*Second Examination.*

V. Candidates for the degree of Bachelor of Science in Public Health are not admitted to the second examination for the degree sooner than eighteen months after having taken their degree in Medicine, nor sooner than six months after having passed their first examination for the degree of Bachelor of Science in Public Health, and they must have attended a course of instruction, consisting of fifty lectures at least, on Public Health in the University of Edinburgh, or in any University of the United Kingdom, or any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical School or under such teacher as may be recognised or approved for the purpose by the University Court.

They must also give evidence (1) that for six months they have practically studied sanitary work under the Medical Officer of Health of a county or burgh or district, containing a population of not less than 25,000; (2) that they have had three months' clinical instruction regarding fevers and infectious diseases in a hospital recognised as suitable for the purpose by the University Court; and (3) that they have had three months' instruction in Mensuration and Drawing under a teacher recognised for the purpose by the University Court.

VI. There is a first examination for the degree of Bachelor of Science in Public Health in (1) Laboratory Work, the examination being practical, written, and oral; (2) in Physics; and (3) in Geology, if an examination in Physics or Geology, as the case may be, qualifying for graduation either in Science or Arts has not previously been passed by the candidate.

VII. There is a second examination, written, oral, and as far as possible practical, for the degree of Bachelor of Science in Public Health in the following subjects, included in the course of instruction in Public Health—viz. (1) Sanitation, (2) Sanitary Law, (3) Vital Statistics, and (4) Medicine in its bearings on Public Health, and the examinations in these subjects are taken at one time.

VIII. The Board of Studies for the Faculty of Science from time to time, with the approval of the Senatus, determines and announces the character of the instruction to be given in the Laboratory and fixes the standard of the examinations.

IX. It is competent for the University Court after consultation with the Senatus to modify from time to time the provisions as to the work and instruction hereinbefore specified as necessary for graduating in

Science in Public Health, in case such modification may be rendered desirable by the development of the Science of Public Health, or by increase of the facilities provided in the said University or elsewhere for the study of any branch of the said Science.

Schedules of the Subjects of Examination.

LABORATORY WORK.

(1.) *Examination of Water.*—Physical Properties, Chemical Properties, Microscopical Appearances, Pollution of Potable Waters.

(2.) *Examination of Air.*—Temperature, Pressure, Humidity; Carbonic Acid, Ozone, Micro-organisms, Organic Matter, Noxious Emanations.

(3.) *Examination of Foods.*—Milk, Butter, Butterine, or Oleomargarine, Flour, Bread, Starchy foods, Sugar, Honey, Butcher meat, Fish, Vegetables.

(4.) *Examination of Beverages.*—Tea, Coffee, Cocoa, Alcoholic Beverages, Aërated Waters.

(5.) *Examination of Condiments.*—Salt, Pepper, Mustard, Vinegar, and Preserves; Examination of Lime Juice. Nutritive Value of Dietaries.

(6.) *Sewage.*—Examination of sewage and of effluents after treatment.

(7.) *Soils.*—Temperature, Humidity, Permeability, Chemical Composition, Gases of the Soil, Micro-organisms.

(8.) *Disinfectants and Deodorisers.*—Chemical Examination of the Materials, Determination of their comparative power.

(9.) *Building Materials.*—Chemical and Physical Properties.

(10.) *Clothing.*—Physical Properties of Clothing Materials.

(11.) *Bacteriology.*—Micro-organisms in relation to Epidemic and other Diseases. Culture and recognition of Pathogenic and Non-Pathogenic, Aerobic and Anaerobic, Micro-organisms.

PHYSICS.

(1.) *Laws of Motion and Properties of Matter.*—Elasticity, Density, Porosity, Divisibility, Viscosity, &c.

(2.) Elements of Dynamics of Solid and Fluid Bodies.

(3.) Elementary Experimental Facts regarding Energy in the common phenomena of Sound, Light, Heat, Electricity, and Magnetism.

(4.) *Elements of Astronomy.*—Causes of Tides, Eclipses, Aberration, Precession, &c.

GEOLOGY.

(1.) *Dynamical Geology.*—The nature and operation of Geological agents:—Rain, Underground Water, Rivers, Ice, the Sea, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogy and Petrology.*—Characters of the more common and widely-distributed minerals and rocks.

(3.) *Structural Geology.*—The structure of rock-masses, more especially Bedding, Joints, Faults, Intrusive Rocks, Draining in connection with Geological Structure. Nature and Origin of Soils and Sub-Soils.

MEDICINE IN ITS APPLICATION TO PUBLIC HEALTH.

The General Pathology of Endemic, Epidemic, and other morbid Processes induced by Environment.

The Causes and Prevention of Endemic and Epidemic Diseases, as well as of Epizootics; of the Contagious or Infectious Diseases; and of those incidental to particular trades, or otherwise produced by the surroundings of the patient. Prophylaxis. Immunity,—conferred and acquired. Vaccination against disease. Nature and Value of Vaccines.

SANITATION.

(1.) *Site and Environment of Dwellings.*—Influence of Position, Aspect, and Climate; Meteorological and Geological Conditions; Soil and Drainage.

(2.) *Water Supply.*—Quantity per head; Relative Eligibility of available Sources of Supply; Estimation of yield; Methods of utilising various Sources of Supply; Storage, Subsidence, and Filtration; Distribution—(α) General, (β) Domestic; Causes, Detection, and Treatment of contaminated Supply.

(3.) *Air Supply.*—Quantity and Temperature, with knowledge of use of instruments employed in their Measurement; Causes and Detection of Impurities; Warming and Ventilation; Characteristics and Fitness of various methods in use.

(4.) *Excreta, Refuse, and Sewage.*—Character and Quantity of in (α) Urban, (β) Rural Districts—

A. Collection and Removal from (1) the Dwelling, (2) the Town or Village; Nature, Practical details, and maintenance of the several methods employed.

B. Disposal: (1) Sanitary, (2) Insanitary methods; Precipitation, Filtration, Irrigation, Discharge; Design and details of necessary works.

(5.) *General Structural and Mechanical Details of Sanitary Works.*—Character, Fitness, and Qualities of Materials (Brick, Cement, Earthenware, Iron, Lead); Design, setting out, and laying of Sewers; Plumbing and Iron-work.

(6.) *Hospitals.*—Principles of Design and Construction.

(7.) *Infectious and Epidemic Diseases.*—Origin, Modes of Propagation, and Means of Prevention; Epizootics.

(8.) *Disinfectants.*—Selection and application.

(9.) *Effects of Insanitary Conditions.*—Insufficient house accommodation, Vitiation of Air, Impure Water, Bad or insufficient Food.

(10.) *Unhealthy Occupations.*—Means of mitigating or removing their unhealthiness.

(11.) *Nuisances.*—Urban, Rural, and Domestic.

(12.) *Disposal of the Dead.*—Burial, Cremation.

(13.) Examination of, and report on, the sanitary condition of a dwelling or locality.

N.B.—Candidates must be able to interpret structural plans and sections submitted to them, and to illustrate their answers when required by sketch plans and diagrams drawn to scale.

SANITARY LAW.[1]

Sanitary Administration. Laws affecting Factories, Workshops, Mines, Common Lodging-houses, Removal of Refuse, Nuisances, Rivers Pollution, Alkali Works, Burial Grounds, Unwholesome Food, Adulteration of Food and Drugs. Sale of Poisons.

VITAL STATISTICS.

Leading facts as regards Population, Birth and Death Rates, Distribution of Diseases.

II.—DOCTORATE OF SCIENCE.

X. Graduates who have held the degree of Bachelor of Science in Public Health from the University of Edinburgh for a term of five years, may offer themselves for the degree of Doctor of Science in Public Health in the said University.

XI. Candidates for the degree of Doctor of Science in Public Health must present a thesis, or a published memoir or work to be approved by the Senatus, on the recommendation of the Faculty of Science, and are required to pass an examination in Public Health, and in such of its special departments as the Senatus, with the approval of the University Court, by regulations framed from time to time, may determine.

The theses, or published memoirs or works, must be records of original research undertaken by the candidates, and must be accompanied by a declaration, signed by them, that the work has been done and the theses or memoirs composed by themselves.

GENERAL.

XII. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed

[1] A knowledge of the Sanitary Law of any part of the British Dominions will be sufficient.

the necessary examinations are entitled to receive the degrees of Bachelor of Science in Public Health and Doctor of Science in Public Health, as the case may be, on payment of the fees required.

XIII. Students who, at the time when these Regulations comes into operation, have completed a part of their course of study with a view to graduation in Science in Public Health in the University of Edinburgh, under regulations in force at the time therein, and thereafter complete the course of study and pass the necessary examinations in conformity with such regulations, or with the provisions of this Ordinance, may become candidates for the degree of Bachelor of Science in Public Health.

XIV. The degrees of Bachelor and Doctor of Science in Public Health are in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and are not conferred *honoris causâ tantum.*

IV.—AGRICULTURE.

D.—Regulations and Curriculum applicable to all who commence attendance on Science Classes after 1st October 1893.

For those who commenced attendance on Qualifying Science Classes before 1st October 1893, *see Regulations, page* 391.

I. A degree of Bachelor of Science in Agriculture is conferred by the University of Edinburgh.

I. Preliminary Examination.

II. Every candidate for the degree of Bachelor of Science in Agriculture must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science; and the conditions imposed with respect thereto by the said Regulations are applicable in all respects to the Degree in Agriculture, except as follows:—The Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

Courses of Instruction.

III. (1) Candidates must in the course of not less than three Academical years (*i.e.*, three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least eleven courses of instruction, in subjects prescribed for examination under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time, which of the said courses are full courses and which are half courses respectively, and also to determine the number of meetings of which

[1] See page 349.

such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Edinburgh, and must include the course in Agriculture and Rural Economy.

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Agriculture[1]: Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there must not be less than the fees exigible for the corresponding courses in the University of Edinburgh.

(3) Residence and practical work at a farm is required of each candidate to such an extent and under such regulations as the Senatus, with the approval of the University Court, may from time to time appoint.

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved Institutions or by recognised teachers in Edinburgh, to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually, at the end of each winter session, to submit to the Senatus a scheme specifying what proportion of the courses is to be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, a syllabus of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section does not apply to approved institutions or recognised teachers outside Edinburgh; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh, where such exist.

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[1] The Institutions recognised for this purpose, in addition to those given at page 351, are:—The Royal Agricultural College, Cirencester; The College of Agriculture, Downton; The University College, North Wales, Bangor; The Yorkshire College, Leeds, for Chemistry, Botany (with Botanical Laboratory Work), Agricultural Chemistry, Veterinary Science, and Economic Entomology; and the Veterinary Colleges of the United Kingdom. See footnote, page 350.

VIII. The subjects of study are as follows :—

1. Mathematics, or Biology (*i.e.*, Zoology and Botany).
2. Natural Philosophy.
3. Chemistry.
4. Agriculture and Rural Economy.
5. Agricultural Chemistry.
6. Geology.
7. Veterinary Hygiene.
8. Agricultural Entomology.
9. Economic Science as applied to Agriculture.
10. A course in one of the following :—
    (*a*) Forestry.
    (*b*) Experimental Physics.
    (*c*) Engineering.
11. Engineering Field Work.

II. Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects—viz., (1) Mathematics, or Biology (*i.e.*, Zoology and Botany) ; (2) Natural Philosophy ; (3) Chemistry.

(2) The examination in these subjects is the same as for the degree of Bachelor in Pure Science.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

(*b*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects (4 to 11 inclusive) specified in Section VIII. hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the whole of the subjects comprised in the First Science Examination, and have attended the required courses in the subjects professed.

XI. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint, and in every such case the Senatus reports to the University Court the reasons for the relaxation.

XII. A candidate for the degree of Bachelor of Science in Agriculture shall not be deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

GENERAL.

XIII. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, shall be entitled to receive the degree of Bachelor of Science in Agriculture, on payment of the fees required.

XIV. A student who, at the time when these Regulations shall come into operation, shall have completed a part of his course of study with a view to graduation in Science in Agriculture in the University of Edinburgh, under regulations in force at the time therein, and shall thereafter complete his course of study and pass the necessary examinations in conformity with such regulations, or with the provisions of these Regulations, may become a candidate for the degree of Bachelor of Science in Agriculture.

XV. The degree of Bachelor of Science in Agriculture shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

OUTLINE OF SUBJECTS OF EXAMINATIONS.

FIRST BACHELOR OF SCIENCE EXAMINATION.[1]

1. (*a*) MATHEMATICS or (*b*) BIOLOGY (*i.e.*, ZOOLOGY and BOTANY).
2. NATURAL PHILOSOPHY.
3. CHEMISTRY.

The Examinations are the same as for the First B.Sc. in Pure Science.

FINAL BACHELOR OF SCIENCE EXAMINATION.

1. AGRICULTURE AND RURAL ECONOMY: ITS SCIENTIFIC PRACTICE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Indications of good or bad Soils—the different Methods of Management.

3. *Drainage.* — Its Practice and Advantages — Irrigation—Wet

[1] Candidates may appear for one or more subjects at a time.

Warping -- Mixing or Top-Dressing -- Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—The Importance of their proper Construction and Careful Management.

5. *Steam Cultivation.*—Its Advantages and Disadvantages.

6. *The Motive Powers Employed on the Farm.*—1st, Man; 2d, Horse; 3d, The Mechanical Powers (Water, Wind, and Steam)—their Comparative Values and Advantages.

7. *Farm Servants.*—Their Labour and Wages — Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour.

8. *The Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (Grain, Root, Forage, and Hay Crops).—Their Selection and Growth—Prevention of Insect Injuries and Diseases.

10. *Identification of Grasses and other Valuable Pasture Plants.*—Character and Habits of those of importance—Detection of Adulterations—Regulations necessary to protect the Farmer in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c.—Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure — its proper Mixing, Storing, and Application—its great advantage as a General Manure. Special Manures and so-called Artificials — their Uses, Abuses, and Adulterations — the proper Times and Methods of their Application. The Value and Use of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—The proper Construction of Fences—the General Arrangement of Farm-Buildings—the best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage of Houses and Farm-yards.

16. *Live-Stock, embracing Cattle, Pigs, Horses, Sheep*—The Various Breeds of each, and suitability of some to Local Conditions—"The Principles of Breeding." Feeding and Management—Cost of Feeding—Proper Mixtures of Food to Use. Cost of the Production of a Stone of Beef, Mutton, and Pork, showing the Amount of Profit in each Case.

17. *Dairying in all its Branches*, including the suitability or otherwise of surrounding Conditions—the proper Classes of Dairy Stock to keep, and their Management—the Treatment of Milk, and its Sale or Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs*—Suitability of the Common Food Substances to the Different Classes of Farm Stock—The Purchase, Storing, and Administration of the same—their Manurial Residues.

2. Agricultural Chemistry.

1. *Soil.*—Origin—Chemical and Physical Characters—Composition and Improvement of Soil—Functions of Soil.

2. *Plants.*—Constituents of Plants: Organic, Inorganic, and Proximate. Composition of Ash. Changes which take place during Plant Growth. Plant Food and its Sources.

3. *Manures.*—General Principles of Manuring. Composition and Nature of general and special Manures. Valuation and Adulteration of Manures. Valuation of Unexhausted Manure in Soils.

4. *Crops.*—Rotation. Cereal Crops. Leguminous Crops. Forage Crops. Root and Tuber Crops. Crop Residues.

5. *Live Stock.*—Animal Nutrition. Constituents of Animals. Foods, Destination of Food. Digestibility and Comparative Nutritive Value of Foods. Water. Animals as Producers of Food and Manure.

6. *The Dairy.*—Constituents and Properties of Milk, Cream, Butter, Cheese, and minor products. Adulterations and Modes of Detection.

3. Geology.

(1.) *Physical Geography and Dynamical Geology.*—The nature and operation of Geological agents:—Rain, Underground Water, Rivers, Ice, the Sea, Life, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogical and Petrological Geology.*—Characters of the principal Rock-forming Minerals: Composition, Origin, and Distribution of the more important and commonly occurring Rocks.

(3.) *Structural Geology.*—The Structure of Rock-masses, more especially Bedding, Joints, Faults, and Denudation.

(4.) *Agricultural Geology.*—Nature and Origin of Soils and Subsoils; Draining in connection with Geological Structure; Mineral substances used as Manures.

4. Veterinary Hygiene.

1. The Comparative Osteology (rudimentary) of the Horse, Ox, and Sheep.

2. The Physiology of Dentition in Horse, Ox, Sheep, and Pig, more especially as indicative of the Age of the Animal.

3. The Physiology of Gestation; the Diseases incidental to the pregnant state, and also those consequent to the act of parturition.

4. Description of the Digestive Organs of the Horse, Ox, and Sheep (separately), also their Physiology, and most ordinary Diseases.

5. Contagious and other Diseases of Farm Stock. Prevention and Treatment of Diseases.

5. Agricultural Entomology.

Insect pests of cultivated plants and of farm live stock. Methods of prevention of, and of remedy for, their attacks. Classification of insects, and details of their structure and life history, in so far as of economic importance.

6. Economic Science as applied to Agriculture.

1. The Food Supply of the United Kingdom. 2. The Wages of Agricultural Labour. 3. The Profits of the Farmer. 4. The Rent of Land and Causes of Variations in Rent. 5. Contracts for the Hire of Land. 6. The Risks of Long Leases. 7. Compensation for Improvements. 8. Fixity of Tenure and its Effects. 9. The Prices of Agricultural Produce. 10. Foreign Competition. 11. Effects of the Appreciation of Gold and the Depreciation of Silver. 12. Effects of various Imperial and Local Taxes on Agriculture.

7 (*a*). Forestry.

1. *Forest Botany.*—Structure and Growth of Trees.

2. *Sylviculture.*—Atmosphere, Climate, and Soil as affecting Forest Vegetation; shape and development of forest trees; pure and mixed woods; the sylvicultural systems; formation and tending of woods.

3. *Felling and Conversion of Timber.*

4. *Structure and Classification of Timber.*

5. *Defects and Diseases.*—Injuries, deformities, attacks by fungi.

6. *Injuries by Animals and Insects.*

7. *Forest Fires.*

8. *Mensuration and Valuation*;—Of felled and growing timber.

9. *Utilisation of Forest Produce.*—Export, technical properties of wood, and the principal uses to which it is applied.

10. *Utility of Woodlands.*

11. *Forest Organisation.*—The principles on which working plans are based.

7 (*b*). Experimental Physics.

The Measurement of Physical Constants, such as—Force of Gravity, Specific Gravity, Specific Heat, Conductivity, Dilatation, Refractive Index, Magnetic and Electric Quantities, &c.

7 (*c*). Engineering.

1. *Mechanics.*—(*a*) Principles of Statics; couples; moments of forces; parallel and inclined forces; centre of gravity; moments of

inertia ; friction. (*b*) Principles of Kinematics and Kinetics ; Newton's laws of motion ; Conservation and transformation of energy.

2. *Strength and Properties of Structural Materials*, including their fitness and adaptability, together with some knowledge of their cost.

3. *Strength and Stability of Structures.*—General knowledge of the design, construction, and maintenance of Roads, Roofs, Bridges, Embankments, Retaining Walls, Aqueducts, and General Buildings.

4. *Hydraulics.*—The laws governing the flow of water in open and closed channels, and its discharge through orifices ; Systems of Drainage and Irrigation ; Pumps, &c.

5. *Mechanism and Machinery.*—General Principles and means of transmission, conversion, and modification of motion ; general millwright work with special reference to the machines ordinarily employed for agricultural purposes.

6. *Prime Movers.*—A knowledge of the sources and modes of estimating power ; The Steam Engine ; Pneumatic Machines ; Hydraulic Motors, Water-wheels, Turbines, &c.

8. Engineering Field Work.

Surveying, with special reference to Estate and Parish Surveying, Levelling, Gauging of Streams and Rivers, Plotting of Surveys and Sections, Setting out of Work, and Calculation of Quantities.

GRADUATION IN SCIENCE UNDER THE OLD REGULATIONS.

Two Degrees in Science are conferred by the University of Edinburgh, viz.:—Bachelor of Science (B.Sc.), and Doctor of Science (D.Sc.). These Degrees are conferred in Physical and Natural Science, in Engineering, and in Public Health. In Agriculture the Degree of B.Sc. only is conferred. Candidates should apply to *the Dean of the Faculty of Science* for information with reference to these Degrees.

In Mental Science and in Philology the Degree of Doctor alone is conferred. Candidates should apply for information to Professor Calderwood, Convener of Science Degrees Committee, for these Sections.

The Degrees in Science are conferred at the Graduation Ceremonials in April and August.

I.—DOCTORATE IN MENTAL SCIENCE.[1]

The Degree of Doctor of Science is open to Candidates highly prepared in the Mental Sciences.

1. The Candidate must be a Graduate, by examination, of a British or a recognised Indian or Colonial University.

2. He must be matriculated in this University for the year in which he appears for Examination or Graduation.

3. He must have attended for at least one academic year in this University, and during that year he must have taken at least two classes on the subjects embraced in the Examination.

4. The Candidate must, in evidence of literary and philosophical culture, send to Professor Calderwood, Convener of the Science Degrees Committee in Mental Science, *at least one month* before proceeding to Examination, a Thesis giving evidence of original research, on a subject in Mental Science approved, *six months before the examination*, by the Science Degrees Committee. Mere compilations will not be accepted. The Candidate can be admitted to examination only after this Thesis has been found satisfactory by the Examiners.

[1] A Draft Ordinance, regulating the conferring of Higher Degrees in Arts and Science, has been issued by the Universities' Commissioners, and will come into force from and after the date of its approval by Her Majesty in Council.—After the approval of this Ordinance—which probably will take place before the beginning of Winter Session 1895-96—the Degrees of Doctor of Science in Mental Science, and Doctor of Science in Philology, will no longer be conferred; but it is proposed that the Degree of D.Sc. will, under certain conditions, be open to Candidates in Mathematics and Natural Philosophy, and the Degree of D.Litt. to Candidates who have taken the Degree of M.A. with Honours in any other group than Mathematics and Natural Philosophy.

5. The Candidate may then proceed to the Examination, which shall include Logic and Metaphysics, Moral Philosophy, and the History of Philosophy, both Metaphysical and Moral; and the Examination shall (as far as convenient) be combined with the Examination for Honours in Philosophy of the year in which the Candidate desires to pass, and including the books and subjects embraced in that Examination. [Candidates may be tested both orally and by writing.]

6. Those who have taken the Degree of Master of Arts in this University with First-Class Honours in the Department of Mental Philosophy, may obtain the Degree of Doctor in Mental Science when a period of *not less than five years* shall have elapsed after they have obtained such Honours, on submitting a sufficient Thesis, on a subject approved by the Science Degrees Committee, and on giving such other evidence of increased proficiency in the Mental Sciences, by published writings or otherwise, as may be satisfactory to the Senatus.

7. The Fee for the Degree of Doctor in Mental Science is £7, 7s.[1] It must be paid at the *Matriculation Office* when the Candidate submits his Thesis. In the event of the Candidate not passing, the fee is not returned, but he may appear at *one* subsequent Examination without paying an extra fee, and at any future Examination on paying one-half of the fee. See page 397 as to payment of fees.

II.—DOCTORATE OF SCIENCE IN PHILOLOGY.[2]

The Degree of Doctor of Science is open to Candidates highly proficient in Philology.

1. The Candidate must be a Graduate, by examination, of a British or recognised Indian or Colonial University.

2. He must be matriculated in this University for the year in which he appears for Examination or Graduation.

3. He must have attended for at least one academic year at this University, and during that year he must have taken at least two classes on the subjects embraced in the Examination.

4. The Candidate must send to Professor Calderwood, Convener of the Science Degrees Committee in Philology, *at least one month* before proceeding to Examination, a Thesis, giving evidence of original research, on some subject in Philology or Archæology, approved *six months before the examination* by the Science Degrees Committee. Mere compilations will not be accepted. The Candidate can be admitted to examination only after this Thesis has been found satisfactory by the Examiners.

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[1] See footnote 1, page 395.
Every candidate, unless a member of the General Council, is required by Act of Parliament to pay the Registration Fee of £1 at least one clear day before the day of graduation.

[2] See footnote 1, p. 379.

5. The Candidate may then offer himself for Examination in any one of the following branches :—

(1.) *Latin and Greek Languages.* Candidates for the Degree of Doctor of Science in Classical Philology will be tested in respect of their general Scholarship by translation from Latin and Greek Authors, and by composition in Latin and Greek Prose. They will further be required to profess a special knowledge of some Department or Epoch of Classical Literature, or of some three or four of the more difficult and important Classical Writers.

(2.) *Semitic Languages.*

The following are the subjects of Examination for the Degree in this Department :—

(*a.*) Hebrew.—The Books of Samuel, Psalms, Isaiah (with Ibn Ezra's Commentary); Micah, and Proverbs to be known critically. Translation into Hebrew.

(*b.*) Syriac.—The Chrestomathy in Nestle's Syriac Grammar. The Biblical Extracts and the Selections from the Chronicle of Bar-Hebraeus and from Ephraem's Hymns in Roediger's Chrestomathia Syriaca. The First Gospel and the Book of Acts (Peshîttâ Version). The Fourth Gospel (Philoxenian Version). Translation into Syriac.

(*c.*) Arabic.—The Kor'ân, Sura II. and Arnold's Chrestomathia Arabica, Sections V.-VII. inclusive. Translation into Arabic. Candidates must be acquainted with the Principles of Semitic Comparative Philology as laid down in Wright's "Arabic Grammar," and his Lectures on the Comparative Philology of the Semitic Languages.

(3.) *Sanskrit Language and Comparative Philology.*

(*a.*) Sanskrit Language and Literature. Translation of passages from standard Sanskrit Authors into English, and of passages from English into Sanskrit.

(*b.*) Science of Language, and Comparative Philology of the Indo-European Languages. Acquaintance with the principles of Comparative Linguistic Research, as laid down in the Comparative Grammar of Bopp, Schleicher's "Compendium," and Müller's and Whitney's "Lectures." Candidates must also show some degree of familiarity with Curtius' "Principles of Greek Etymology" (the Introduction); King and Cookson, "Principles of Sound and Inflexion;" Delbrück's "Introduction to the Study of Language;" and Brugmann's "Elements of Comparative Philology."

[The Examinations will be held annually at the close of the Winter Session. Candidates may be tested both orally and by writing.]

6. Those who have taken the Degree of Master of Arts in this University, with First-Class Honours in the Department of Classical Literature, may obtain the Degree of Doctor of Science in Philology, when a

period of *not less than five years* shall have elapsed after they have obtained such Honours, after submitting a sufficient Thesis on a subject approved by the Science Degrees Committee, and on giving such other evidence of increased proficiency in Philological Research, by published writings or otherwise, as may be satisfactory to the Senatus.

7. The Fee for the Degree of Doctor of Science in Philology is £7, 7s.[1] It must be paid at the *Matriculation Office* when the Candidate submits his Thesis. In the event of the Candidate not passing, the fee is not returned, but he may appear at *one* subsequent Examination without paying an extra fee, and at any future Examination on paying one-half of the fee. See page 397 as to payment of fees.

Monday, 1st April 1895, at 9 o'clock, is fixed for the commencement of the Examinations of Candidates for the Degree of Doctor in Mental Science, and of Doctor in Philology,—either in Latin and Greek, or in Sanskrit and Comparative Philology. The Examination in Semitic Philology will be held on Wednesday, 4th April 1895, and following days.

HENRY CALDERWOOD,
Convener of Science Degrees Committee in Mental Science and Philology.

III.—DEGREES OF BACHELOR AND DOCTOR OF SCIENCE IN THE DEPARTMENT OF PHYSICAL AND NATURAL SCIENCE.

E.—Regulations for Graduation in Physical and Natural Science, applicable to all who commenced attendance on Science Classes before 1st October 1892.

PRELIMINARY EXAMINATION.

1. Candidates for Degrees in Physical and Natural Science must, unless exempted, pass a Preliminary Examination in English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and in at least two of the following subjects:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, and Moral Philosophy.

[1] See footnote 1, page 395.
Every Candidate, unless a member of the General Council, is required by Act of Parliament to pay the fee of £1 for Registration at least one clear day before the day of graduation.

The Preliminary Examinations in General Education are held in the Examination Hall in the University. See Outline of Subjects of Examination, pages 128 to 131, and Time-Table of Examinations, and Regulations as to Entering for Examination and Payment of Fees, pages 397.

The Fee for the Examination or for Registration of qualification is £1, 1s.

EXEMPTIONS FROM THE PRELIMINARY EXAMINATION.[1]

A Degree in Arts in any one of the Universities of the United Kingdom, or in one of the Colonial Universities, or Universities of British India, exempts from the Preliminary Examination.

(*a.*) Bachelors or Masters of Arts, by Examination, of British or recognised Indian or Colonial Universities.

(*b.*) Bachelors or Doctors of Medicine of British or recognised Indian or Colonial Universities.

(*c.*) Holders of two Departmental Certificates in the Faculty of Arts of this University.

(*d.*) Candidates who have passed in this University the Entrance Examination for Curriculum of Three Sessions for Degrees in Arts in Latin, Greek, and Mathematics, are exempted from the Preliminary Examination in Latin, Arithmetic, and Elements of Mathematics, and are held to have passed in Greek and Higher Mathematics as optional subjects.

(*e.*) Matriculated Students of the University of London.

(*f.*) Students who have been admitted by Examination to the Royal Indian Engineering College, Cooper's Hill, and who have obtained 50 per cent. of the marks in Latin or in Greek in the Competitive Examination for entrance to that College. Should such Students not bring evidence of having obtained 50 per cent. in either of these subjects, they will be required to pass the Preliminary Examination in Latin.

(*g.*) Holders of Certificates of having passed the Leaving Examinations of the Universities of Oxford and Cambridge when certified as equivalent to a pass in Responsions at Oxford and the First Examination at Cambridge.

2. Candidates must produce evidence of having passed the Preliminary Examination and of attendance on qualifying Classes embracing all the subjects included in the Science Examination which they purpose to undergo.

3. The attendance on Science Classes for the Degree of

[1] For other Examinations which will exempt from the Preliminary Examinations under the old Regulations, apply to the *Dean of the Faculty of Science.*

Bachelor of Science must extend over three Academic years, one of which must be passed at the University of Edinburgh, the other two years either at this University, or at Universities or Institutions [1] recognised by and approved by this University; Classes of Chemistry, of Practical Chemistry, of Botany, and of Zoology, which are recognised for the First Professional Examination for Degrees in Medicine, are also recognised for the First Bachelor of Science Examination.

4. Each Academic year must be constituted by attendance on Science Classes during at least two full courses during one winter session, or one such course and two full courses during a summer session. Work in a scientific laboratory extending over a period of not less than five months will be reckoned equivalent to a full winter course of lectures, and work in a scientific laboratory extending over a period of three months will be reckoned equivalent to a full summer course of lectures.

5. Every Candidate for a Degree in Science must produce his Matriculation Ticket for the year in which he appears for Examination or Graduation.

6. Candidates for Graduation who have previously passed the Examinations are required to intimate to the Clerk to the Senatus their intention to Graduate, and pay the fee at least ten days before the date of Graduation. Those whose Examinations are not then completed are required to give such intimation at the earliest possible date, and at latest one clear day before the day of Graduation.

EXAMINATIONS.

For the Degree of Bachelor of Science, there are two Examinations conducted by written questions as well as orally and practically.

(*a.*) FIRST BACHELOR OF SCIENCE EXAMINATION.

1. The First Examination for B.Sc. is as to the general knowledge of the Candidate on the following subjects. viz. :—

MATHEMATICS.	ZOOLOGY, including COMPARATIVE ANATOMY.
NATURAL PHILOSOPHY.	BOTANY.
CHEMISTRY.	

2. The Examinations are the same as in the corresponding

[1] Only Institutions possessing the necessary staff and appliances for Theoretical and Practical Instruction in Science will be recognised by the University. For Universities and Institutions at present recognised, see page 351, and footnote, page 350.

subjects of the First Science Examination under the new Regulations for Graduation in Pure Science.

3. Masters of Arts who have taken honours in the Natural Sciences after passing the Examinations for M.A. in this University are exempted from the First Bachelor of Science Examination on payment of the Fees.

4. Holders of departmental certificates in the Department of Mathematics in this University are exempted from Examination in Mathematics and Natural Philosophy.

5. Candidates who have passed the First Professional Examination for Degrees in Medicine in this University are exempted from Examination in Chemistry, Zoology, and Botany.

(*b.*) SECOND BACHELOR OF SCIENCE EXAMINATION.

1. The Second B.Sc. Examination is divided into the following groups, one of which must be professed by the candidate:—

(*a.*) THE MATHEMATICAL SCIENCES, .	Higher Mathematics, Natural Philosophy.
(*b.*) THE PHYSICAL EXPERIMENTAL SCIENCES, ...	Experimental Physics, Chemistry.
(*c.*) THE NATURAL SCIENCES, . .	Zoology, Botany, Physiology, Geology.

2. The Examinations are the same as in the corresponding subjects for the Final Examination in Pure Science under the new Regulations.

3. Candidates may proceed to the Second B.Sc. Examination at the next periodical Examination after passing the First.

4. Candidates who have passed the First B.Sc. Examination, and have taken Honours in the Department of Mathematics for the Degree of M.A. in this University, are exempted from the Second B.Sc. Examination in the Department of the Mathematical Sciences on payment of the Fees.

(*c.*) DOCTOR OF SCIENCE EXAMINATION.

1. Graduates of this University who have held the Degree of Bachelor of Science for a term of five years may offer themselves for the Degree of Doctor of Science.

2. A Candidate for the Degree of Doctor of Science must profess one of the following branches of Science:—Mathematics; Natural Philosophy; Astronomy; Chemistry; Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Compara-

tive Anatomy; Botany, including Vegetable Physiology; and in it he will be expected to show a thorough knowledge.

3. He must submit a Thesis or a published Memoir or Work, to be approved by the Senatus. The Thesis, Memoir, or Work, must be a record of original research undertaken by the Candidate, and must be accompanied by a Declaration, signed by him, that the work has been done and the account of it composed by himself.

The Thesis must be sent to the *Dean of the Faculty of Science* on or before 30th April in the year in which the Candidate proposes to graduate.

The Candidate, if required by the Senatus, must pass such an examination as may from time to time be determined.

IV.—ENGINEERING.

F.—Regulations for Graduation in Science in Engineering, applicable to all who commenced attendance on qualifying Science Classes before 1st October 1893.

The Degree of *Bachelor of Science* is open to Candidates submitting themselves for examination in Engineering according to the subjoined Rules.

1. Candidates for Degrees in Engineering must, unless exempted, pass a Preliminary Examination in English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and in at least two of the following subjects:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, and Moral Philosophy.[1]

2. Candidates must also produce evidence of attendance on qualifying Classes, embracing all the subjects included in the Examination which they purpose to undergo.

3. The attendance on Science Classes for the Degree of Bachelor of Science must extend over three Academic years, one of which must be passed at the University of Edinburgh, the two other years either at this University, or at Universities or Institutions[2] recognised by and approved by this University. Classes of Chemistry, of Practical Chemistry, which are recognised for the First Professional Examination for Degrees in Medicine, are also recognised for the First Bachelor of Science Examination.

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[1] The Preliminary Examination is the same as in the corresponding subjects under the new Regulations. See page 349. For exemptions under the old Regulations, see page 383.

[2] Only Institutions possessing the necessary staff and appliances for Theoretical and Practical Instruction in Science will be recognised by the University.

A list of Universities and Institutions at present recognised in terms of this regulation is given, page 351.

4. Each Academic year must be constituted by attendance on Science Classes during at least two full courses during one winter session, or one such course and two full courses during a summer session. Work in a scientific laboratory extending over a period of not less than five months will be reckoned equivalent to a full winter course of lectures, and work in a scientific laboratory extending over a period of three months will be reckoned equivalent to a full summer course of lectures.

5. Every Candidate for a Degree in Science must produce his Matriculation Ticket for the year in which he appears for Examination or Graduation.

6. Candidates for Graduation who have previously passed the Examinations are required to intimate to the Clerk to the Senatus their intention to Graduate, and pay the fee at least ten days before the date of Graduation. Those whose Examinations are not then completed are required to give such intimation at the earliest possible date, and at latest one clear day before the day of Graduation.

7. There are two examinations for the Degree of *Bachelor of Science*. The examinations are written, oral, and practical.

8. The first examination is as to the general knowledge of the Candidate on the following subjects, viz. :—

MATHEMATICS.
NATURAL PHILOSOPHY.
CHEMISTRY.

The examinations are the same as the first examination in these subjects for Degrees in Pure Science.

9. This examination is called the *First Bachelor of Science Examination in Engineering*, and candidates, who have passed the Preliminary, may appear for it at the first period of Examination subsequent to their attendance on the necessary classes. It may be taken at one or two Examinations: (*a*) Mathematics and Physics must be taken together; (*b*) Chemistry (including Practical Chemistry).

10. Candidates who have passed the *First Bachelor of Science Examination* (or who have been exempted from it), may proceed to the *Second Bachelor of Science Examination* at the next periodical Examination after passing the First.

11. For this Examination each Academic year must be constituted by attendance on Science Classes during at least two full courses during one Winter Session, or one such course and two full courses during a Summer Session.

The Second B.Sc. Examination will be in the following subjects :—

DYNAMICS.
ENGINEERING.
DRAWING.

12. Candidates, after passing the Second Examination, and otherwise complying with the Regulations for Graduation, will be recommended

to the Senatus for the Degree of Bachelor of Science on their giving at least one day's notice of their intention to graduate.

The examinations will be conducted by University Examiners, and the special Examiner appointed by the University Court.

FIRST BACHELOR OF SCIENCE EXAMINATION.

Outline of Subjects of Examination.

(*a.*) Mathematics.

(*b.*) Natural Philosophy.

(*c.*) Chemistry—

The Examinations in Mathematics, Natural Philosophy, and Chemistry are the same as for First B.Sc. in Pure Science.

SECOND BACHELOR OF SCIENCE EXAMINATION.

(*a.*) Dynamics—

The Applications of Mathematics (as far as the Elements of the Differential and Integral Calculus) to

Kinematics.

Statics of Rigid Solids, Elastic and Perfectly Flexible Bodies, and Perfect Fluids.

Kinetics of a Particle, of a Flexible Cord, and of a Rigid Solid.

The Simpler Portions of Elasticity of Solids and Kinetics of Perfect Fluids.

(*b.*) Engineering—

Field-Work.—Surveying; Levelling; Setting out of Work; Calculation of Quantities.

Properties of Materials.—General Properties, with special knowledge of their Strength, and the Purposes to which they are applied, and some knowledge of their Cost.

Strength and Stability of Structures Designed by Civil Engineers.—Metal and Timber Bridges and Roofs. Arches in Masonry. Walls. Retaining Walls. Embankments. Cuttings. Breakwaters. Aqueducts. Pipes. Canals.

Strength and Form of the Elements of Machines.

Design of Combined Structures.—An elementary knowledge of the Design of Bridges and Roofs, of Reservoirs, Embankments, collecting and distributing Machinery of Waterworks, and of the main features of Railway construction, Harbours, and Drainage.

Design of Machinery.—An elementary knowledge of the construction of the Steam Engine, stationary and locomotive, of Prime Movers driven by Water, of Mill-wright work, and the general arrangement of Workshops and Factories.

Prime Movers.—Theory of Heat Engine. The Hot Air Engine. The Steam Engine. The Gas Engine. Turbines and Water

Wheels. *Power Transmission*—Telodynamic, Hydraulic, Electric.

(*c.*) DRAWING—

Candidates must exhibit a good knowledge of Geometrical Drawing, and be able to represent neatly, in the usual manner employed by Engineers, Plans and Sections of Buildings and Machinery, and also to make Engineering Sketches with figured dimensions from actual objects.

DOCTORATE OF SCIENCE. (*See page* 364).

V.—PUBLIC HEALTH.

G.—REGULATIONS FOR GRADUATION IN SCIENCE IN PUBLIC HEALTH, APPLICABLE TO ALL WHO COMMENCED ATTENDANCE ON SCIENCE CLASSES BEFORE 1ST OCTOBER 1894.

Two Degrees in Science in the Department of Public Health are conferred by the University of Edinburgh, viz., Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.).

I. BACHELOR OF SCIENCE.

1. Every Candidate for Graduation in Science in the Department of Public Health must be a Graduate in Medicine of a University of the United Kingdom, or of a Colonial, Indian, or Foreign University specially recognised by the University Court.

2. Every Candidate must be matriculated for the year in which he appears for examination or graduation.

3. There are two Examinations for the Degree of Bachelor of Science in the Department of Public Health.

4. Every Candidate who desires to proceed to the first examination for the said Degree must produce evidence—(*a*) that he has taken a Degree in Medicine in the University of Edinburgh, or in a University recognised under section 1 hereof; (*b*) that he has worked for at least six months, or the usual winter session, in a Laboratory where practical instruction is given in the methods of investigating subjects pertaining to Public Health. This course must be attended, after Graduation in Medicine, either in the Public Health Laboratory of the University of Edinburgh, or in a Laboratory in which instruction in Public Health is given, and which has, after due enquiry, been recognised by the University Court.[1]

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[1] *Public Health Laboratories and Teachers recognised under this section* :—

Public Health Laboratory of University College, Dundee,	E. Percy F. Frankland, Ph.D., 16 February 1891.
Liverpool School of Science and Technology,	George Tate, Ph.D., 15 June 1891.
King's College, London, ...	W. R. Smith, M.D., D.Sc., November 1891.
University of Aberdeen, ...	Professor Matthew Hay, M.D., 15 February 1891.
Pasteur's Institute, Paris, ...	22 October 1892.

5. Laboratories are not recognised for the purpose referred to in section 4 (*b*), in which provision is not made for the teaching of Public Health Laboratory work in accordance with the Schedule of Laboratory work issued by the Senatus, as provided in section 10 hereof, nor will they be recognised if such work is not taught by a specially recognised teacher.

6. Candidates shall not be admitted to the Second Examination for the said Degree until one year after taking a Degree in Medicine, nor until an interval of at least three months has elapsed after passing the First Examination.

7. Every Certificate of Laboratory attendance must bear that the Candidate worked during his period of attendance for at least fifteen hours per week.

8. Every Candidate who desires to proceed to the second examination for the said Degree must produce evidence—(*a*) that he has attended in this University at least two courses of instruction on subjects included in the Examinations set forth in section 10 hereof; (*b*) that he has attended a course of lectures in which instruction is given in Public Health; and (*c*) that after having obtained a Registrable Qualification in Medicine, he has practically studied the duties of Out-door Sanitary work under the Medical Officer of Health of a county or of a large urban district for a period of not less than six months.[1]

9. The subjects of the Examinations for the Degree of Bachelor of Science in the Department of Public Health shall be as follows:—

(*a*) For the First Examination:—1. Laboratory work. The Examination in this department is conducted practically, and by a Written Examination in which the Candidate shall be required to explain the rationale of the investigations contained in the schedule of Laboratory work referred to below. There is also an Oral Examination. 2. Elements of Experimental Physics. The Examination in this Department is conducted by means of written papers, followed by an Oral Examination.

(*b*) For the Second Examination:—1. Medicine in its application to Public Health. 2. Practical Sanitation. 3. Sanitary Law and Vital Statistics. 4. Mensuration and Drawing.

The Examinations in these departments are conducted by means of written papers, and also as far as possible practically; and an Oral Examination in each department is held after the Written Examinations.

10. Detailed Schedules of the subjects of Examination in each department named in section 10 will be issued from time to time by authority of the Senatus.

Schedule of Subjects of Examination.

The Schedules of the Subjects of Examination are the same as under the New Regulations, except that Geology is not included under the Old Regulations.

DOCTORATE OF SCIENCE. (*See page* 370).

[1] See footnote, page 389.

VI.—AGRICULTURE.

H.—Regulations for Graduation in Science in Agriculture, applicable to all who commenced attendance on Science Classes before 1st October 1893.

1. In the Department of Agriculture the Degree of Bachelor of Science is the only Degree conferred.

2. The Rules as to the Preliminary Examination on subjects of General Education are the same as those for Graduation in the Department of Engineering. See page 386.

3. The Rules as to attendance on qualifying Classes for three Sessions are the same as those for Graduation in the Department of Engineering, see page 386; provided always (1.) that instead of one of such three years of attendance, a year may be spent on a Farm or Farms in pursuance of the practical study of Agriculture; (2.) That in the case of any subject in the Department of Agriculture, which is not taught in the University, attendance may be given at an Institution specially recognised by the University Court for purposes connected with Graduation in Science in that Department only;[1] and (3.) That, in the case of Agricultural Chemistry, attendance may be given on a course of Instruction thereon by any teacher of Chemistry who is recognised under the Regulations for Graduation in Medicine.

4. Each Candidate must produce a Certificate of attendance upon a Qualifying Class on each subject of Examination; and should he, instead of one of the three years of attendance on Classes required in Section 3, have spent a year in the practical study of Agriculture, he must produce a Certificate to that effect.

5. There are two Examinations for the Degree of Bachelor of Science in the Department of Agriculture. These Examinations are Written, Oral, and Practical.

6. The first Examination is in :—[2]

(1.) Agriculture, to such an extent as may from time to time be fixed by the Senatus.

(2.) Chemistry, to the extent required for the First Examination for the Degree in Pure Science.

(3.) Biology:—(*a*) Botany, or (*b*) Natural History, either subject, at the option of each Candidate.

In either case the Examination shall be to the extent required for the First Examination in these subjects for the Degree in Pure Science.

(4.) Geology, in so far as bearing on Agricultural Science.

[1] The Institutions recognised for this purpose, in addition to those given at page 351, are:—The Royal Agricultural College, Cirencester; The College of Agriculture, Downton; The University College, North Wales, Bangor; The Yorkshire College, Leeds, for Chemistry, Botany (with Botanical Laboratory Work), Agricultural Chemistry, Veterinary Science, and Economic Entomology; and The Veterinary Colleges of the United Kingdom. See footnote, page 350.

[2] This Examination may be taken at one period or in two divisions at separate periods.

(5.) Economic Science, to such extent as may from time to time be fixed by the Senatus.

7. Candidates who have passed the First Examination may present themselves at the end of six months for the Second Examination.

8. The Second Examination is in :—[1]

(1.) Agriculture and Rural Economy.

(2.) Chemistry, as applied to Agriculture.

(3.) Veterinary Hygiene, to such extent as may from time to time be fixed by the Senatus.

(4.) Engineering, to such extent as may from time to time be fixed by the Senatus.

9. Candidates who have passed the Second Examination will be recommended to the Senatus for the Degree of Bachelor of Science.

10. The Examinations are conducted by University Examiners appointed by the University Court, and an additional Examiner in Agriculture, to be appointed by the University Court.

OUTLINE OF SUBJECTS OF EXAMINATIONS.

FIRST BACHELOR OF SCIENCE EXAMINATION.

1. Agriculture : Its Scientific Practice.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Indications of good or bad Soils—the different Methods of Management.

3. *Drainage.*—Its Practice and Advantages — Irrigation — Wet-Warping—Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—The Importance of their proper Construction and Careful Management.

5. *Steam Cultivation.*—Its Advantages and Disadvantages.

6. *The Motive Powers Employed on the Farm.*—1st, Man; 2nd, Horse; 3rd, The Mechanical Powers (Water, Wind, and Steam)—their Comparative Values and Advantages.

7. *Farm Servants.*—Their Labour and Wages—Day-work and Piece-work. Detailed and Total costs of Horse and Hand Labour.

8. *The Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (Grain, Root, Forage, and Hay Crops).—Their Selection and Growth—Prevention of Insect Injuries and Diseases.

10. *Identification of Grasses and other Valuable Pasture Plants.*—Character and Habits of those of importance—Detection of Adulterations—Regulations necessary to protect the Farmer in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

[1] See footnote 2, page 391.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c.—Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure—its proper Mixing, Storing, and Application—its great advantage as a General Manure. Special Manures and so-called Artificials—their Uses, Abuses, and Adulterations—the proper times and Methods of their Application. The Value and Use of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—The Proper Construction of Fences—the General Arrangement of Farm-Buildings—the best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage of Houses and Farm-yards.

2. CHEMISTRY.

3. BOTANY.

4. NATURAL HISTORY.

The Examinations in Chemistry, Botany, and Natural History are the same as for the First B.Sc. in Pure Science.

5. GEOLOGY AS BEARING ON AGRICULTURE.

(1.) *Physical Geography and Dynamical Geology.*—The nature and operation of Geological agents: Rain, Underground Water, Rivers, Ice, the Sea, Life, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogical and Petrological Geology.*—Characters of the principal Rock-forming Minerals: Composition, Origin, and Distribution of the more important and commonly occurring Rocks.

(3.) *Structural Geology.*—The Structure of Rock-masses, more especially Bedding, Joints, Faults, and Denudation.

(4.) *Agricultural Geology.*—Nature and Origin of Soils and Subsoils; Draining in connection with Geological Structure: Mineral substances used as Manures.

6. ECONOMIC SCIENCE AS APPLIED TO AGRICULTURE.

1. The Food Supply of the United Kingdom. 2. The Wages of Agricultural Labour. 3. The Profits of the Farmer. 4. The Rent of Land and Causes of Variations in Rent. 5. Contracts for the hire of Land. 6. The Risks of Long Leases. 7. Compensation for Improvements. 8. Fixity of Tenure and its Effects. 9. The Prices of Agricultural Produce. 10. Foreign Competition. 11. Effects of the Appreciation of Gold and the Depreciation of Silver.

SECOND BACHELOR OF SCIENCE EXAMINATION.

1. AGRICULTURE AS FOR FIRST B.SC. AND THE FOLLOWING—

(1.) *Live-Stock, embracing Cattle, Pigs, Horses, Sheep*—The Various Breeds of each, and suitability of some to Local Conditions—"The Principles of Breeding." Feeding and Management—Cost of Feeding—Proper Mixtures of Food to Use. Cost of the Production of a Stone

of Beef, Mutton, and Pork, showing the Amount of Profit in each Case.

(2.) *Dairying in all its Branches*, including the suitability or otherwise of surrounding Conditions—the proper Classes of Dairy Stock to keep, and their Management—the Treatment of Milk, and its Sale or Manufacture into Cheese, Butter, &c.

(3.) *Feeding Stuffs.*—Suitability of the Common Food Substances to the Different Classes of Farm Stock—the Purchase, Storing, and Administration of the same—their Manurial Residues.

2. Agricultural Chemistry.

1. *Soil.*—Origin—Chemical and Physical Characters—Composition and Improvement of Soil—Functions of Soil.

2. *Plants.*—Constituents of Plants: Organic, Inorganic, and Proximate. Composition of Ash. Changes which take place during Plant Growth. Plant Food and its Sources.

3. *Manures.*—General Principles of Manuring. Composition and Nature of general and special Manures. Valuation and Adulteration of Manures. Valuation of Unexhausted Manure in Soils.

4. *Crops.*—Rotation. Cereal Crops. Leguminous Crops. Forage Crops. Root and Tuber Crops. Crop Residues.

5. *Live Stock.*—Animal Nutrition. Constituents of Animals. Foods, Destination of Food. Digestibility and Comparative Nutritive Value of Foods. Water. Animals as Producers of Food and Manure.

6. *The Dairy.*—Constituents and Properties of Milk, Cream, Butter, Cheese, and minor products. Adulterations and Modes of Detection.

3. Veterinary Hygiene.

1. The Comparative Osteology (rudimentary) of the Horse, Ox, and Sheep.

2. The Physiology of Dentition in Horse, Ox, Sheep, and Pig, more especially as indicative of the Age of the Animal.

3. The Physiology of Gestation; the Diseases incidental to the pregnant state, and also those consequent to the act of parturition.

4. Description of the Digestive Organs of the Horse, Ox, and Sheep (separately), also their Physiology, and most ordinary Diseases.

5. Contagious and other Diseases of Farm Stock. Prevention and Treatment of Diseases.

4. Engineering.

1. *Engineering Field Work.*—Surveying, with special reference to Estate and Parish Surveying, Levelling, Plotting of Surveys and Sections, Calculation of Quantities.

2. *Mechanics.*—(*a*) Principles of Statics; couples; moments of forces; parallel and inclined forces; centre of gravity; moments of inertia; friction. (*b*) Principles of Kinematics and Kinetics; Newton's laws of motion; Conservation and transformation of energy.

3. *Strength and Properties of Structural Materials*, including their fitness and adaptability, together with some knowledge of their cost.

4. *Strength and Stability of Structures.*—General knowledge of the design, construction, and maintenance of Roads, Roofs, Bridges, Embankments, Retaining Walls, Aqueducts, and General Buildings.

5. *Hydraulics.*—The laws governing the flow of water in open and closed channels, and its discharge through orifices; Systems of Drainage and Irrigation; Pumps, &c.

6. *Mechanism and Machinery.*—General Principles and means of transmission, conversion, and modification of motion; general millwright work with special reference to the machines ordinarily employed for agricultural purposes.

7. *Prime Movers.*—A knowledge of the sources and modes of estimating power; The Steam Engine; Pneumatic Machines; Hydraulic Motors, Water-wheels, Turbines, &c.

FEES UNDER THE NEW REGULATIONS.[1]

1. Preliminary Examination.

The Fee for the Preliminary Examination is 10s. 6d. for each appearance.

2. Fees for Degrees[1] or for Registering Equivalents.

(1) *Pure Science and Engineering*—			
First B.Sc. Examination, (or for each subject, £1, 1s.)	£3	3	0
Second B.Sc. Examination,	3	3	0
Doctor of Science,	10	10	0
	£16	16	0
(2) *Public Health*—			
First B.Sc. Examination,	£3	3	0
Second B.Sc. Examination,	3	3	0
For the Degree of Doctor,	10	10	0
	£16	16	0
(3) *Agriculture*—			
First B.Sc. Examination, (or for each subject, £1, 1s.)	£3	3	0
Second B.Sc. Examination,	3	3	0
	£6	6	0

[1] When names are not entered nor fees paid on or before the stated dates, a late entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to have entered for the Examination until his Name is entered, all the necessary Certificates, &c., lodged, and the Fee paid.

Every Candidate, unless a Member of the General Council, is required before graduation to pay the Fee for Registration of £1, now made compulsory by Act of Parliament.

Candidates for the Degree of B.Sc. who fail to pass in one or more subjects pay a fee of 10s. 6d. for re-examination in each subject, and Candidates for D.Sc. pay a fee of £3, 3s. for each re-appearance for examination.

FEES UNDER THE OLD REGULATIONS.[1]

(1) *Physical and Natural Science and Engineering*—

For the Preliminary Examination, or for Registration of any exempting Qualification, . .	£1	1	0
For the First Bachelor of Science Examination, do.,	2	2	0
For the Second Bachelor of Science Examination, do.,	2	2	0
	£5	5	0

(2) *Public Health*—

For the First Examination for the Degree of Bachelor, ...	£5	5	0
For the Second do., do., .	5	5	0
	£10	10	0

(3) *Agriculture*—

For the Preliminary Examination, or for Registration of any exempting Qualification, . .	£1	1	0
For the First Bachelor of Science Examination, do.,	2	2	0
For the Second do. do., do.,	2	2	0
	£5	5	0

In the event of a Candidate not passing, the Fee is not returned, but he may appear at *one* subsequent Examination without paying an extra Fee, and at any future Examination on paying one-half of the Fee.

Every Candidate for Graduation is required to pay the Fee of £1 for Registration as a Member of the General Council of the University, at least one clear day before the date of Graduation.[2]

All communications relating to the Curriculum and Examinations for Degrees in Science, and to Examinations for Science Fellowships and Scholarships, &c., should be addressed to *The Dean of the Faculty of Science*, University, Edinburgh.

All Examination, Matriculation, and Registration Fees are payable at the *Matriculation Office*, University. When Candidates cannot attend personally to pay the Fees, they should transmit them to T. GILBERT, by *Post Office*, or *Postal Orders*, or by *Bank Drafts*, crossed "Union Bank of Scotland (Hunter Square Branch), Edinburgh," and not by cheques on private accounts.

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[1] See footnote, p. 395.

[2] Candidates should apply for their Diplomas at the Matriculation Office, immediately after obtaining the Degree. There is no additional charge for the Diploma. Any Graduate who cannot apply personally for his Diploma, is required to give written authority to some person to receive and give a receipt for it.

DATES OF EXAMINATIONS, FOR PRESENTING CERTIFICATES, AND PAYMENT OF FEES.[1]

1894.		PRELIMINARY EXAMINATION.[1]
Sept. 21.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,, 28.	Fri.	Italian, 2-5.
,, 29.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6; Greek, 3-5.[2]
1894.		
Oct. 1.	Mon.	Lower Latin, 9-12; Lower Mathematics, 2-5.[2]
,, 2.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30; French, 3-5.[2]
,, 3.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30; German, 3-5.[2]
,, 4.	Thur.	Higher Mathematics, 9-11, 12-1.30; Logic, 2-4;[2] French, 2nd paper, 3-5.
,, 5.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4; Moral Philosophy, 9-11;[2] Mechanics, 1-4.[2]
,, 6.	Sat.	Natural Philosophy, 9-11.[2]
1895.		
Mar. 20.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,, 29.	Fri.	Italian, 2-5.
,, 30.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6; Greek, 3-5.[2]
April 1.	Mon.	Lower Latin, 9-12; Lower Mathematics, 2-5.[2]
,, 2.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30; French, 3-5.[2]
,, 3.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30; German, 3-5.[2]
,, 4.	Thur.	Higher Mathematics, 9-11, 12-1.30; French, 2nd paper, 3-5; Logic, 2-4.[2]
,, 5.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4; Moral Philosophy, 9-11;[2] Mechanics, 1-4.[2]
,, 6.	Sat.	Natural Philosophy, 9-11.[2]
1894.		FIRST SCIENCE EXAMINATION.[1]
Oct. 2.	Tu.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,, 11.	Thur.	Mathematics, 9-11, 11.30-1.30; Natural Philosophy, 2.30-4.30.
,, 12.	Fri.	Natural Philosophy, 9-11.
,, 13.	Sat.	Agriculture, 9-12;[2] Economics, 1-3.[2]
1895.		
Mar. 18.	Mon.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.

[1] See footnote, page 395.
[2] For Students completing the Examination under the Old Regulations.

1895.

Mar.	23.	Sat.	Practical Chemistry and following days (if necessary), at hours to be announced.
,,	25.	Mon.	Chemistry, 10-12; Botany, 1-3; Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,,	26.	Tu.	Zoology, 10-12; Geology (Public Health), 1-3; Geology (Agriculture), 1-3.[1]
,,	27.	Wed.	Agriculture, 9-12;[1] Economics (Agriculture), 1-3.[1] Oral Examinations begin. Practical Work in the Public Health Laboratory begins.
April	3.	Wed.	Mathematics, 3-5.
,,	4.	Thur.	Mathematics, 9-11.
,,	5.	Fri.	Natural Philosophy, 9-11, 11.30-1.30.
July	12.	Thur.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,,	20.	Sat.	Practical Chemistry (and following days if necessary, at hours to be announced).
,,	22.	Mon.	Chemistry, 10-12; Botany, 1-3. Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,,	23.	Tu.	Zoology, 10-12; Geology (Public Health), 1-3; Geology (Agriculture), 1-3.[1]
,,	24.	Wed.	Practical Work in Public Health Laboratory begins. Oral Examinations begin.

FINAL SCIENCE EXAMINATION.[2]

After the Academic Year 1894-95 *the Final Examinations in Pure and Applied Science will take place as follows:—Mathematics, Natural Philosophy, Botany, Engineering, and Agriculture at the end of the Winter Session; Chemistry, Geology, and Human Anatomy (including Anthropology) in July; Zoology, Physiology, and Astronomy at the beginning of the Winter-Session. The Examinations for Degrees in Public Health will take place in July.*

1895.

Mar.	18.	Mon.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,,	25.	Mon.	Botany, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged; Veterinary Hygiene, 1-3.
,,	26.	Tu.	Geology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged; Geology (Agriculture), 1-3.
,,	27.	Wed.	Chemistry, 9-12 (1st paper), 1-3 (2nd paper);

[1] For Students completing the Examination under the Old Regulations.
[2] See footnote, page 395.

1895.

			Practical Examination in Chemistry, at time to be arranged; Agriculture, 9-12; Agricultural Chemistry, 1-3; Practical Examination in Agricultural Chemistry, at time to be arranged.
Mar.	28.	Thur.	Zoology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	29.	Fri.	Physiology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	30.	Sat.	Human Anatomy (including Anthropology), 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
April	1.	Mon.	Mathematics, 9-12, 2-5; Engineering, 9-11, 3-5.
,,	2.	Tu.	Mathematics, 9-12; Natural Philosophy, 2-5; Engineering, 9-12; Engineering Field Work (Agriculture), 3-5; Dynamics (Engineering), 2-5.
,,	3.	Wed.	Natural Philosophy, 9-12, 2-5; Experimental Physics, 9-12; Engineering, 9-11; Engineering (Agriculture), 9-11; Economic Science, 11.30-1-30; Experimental Physics (Agriculture), 3-5.
,,	4.	Thur.	Agricultural Entomology, 9-11; Forestry, 11.30-1-30; Drawing (Engineering), 9-12, 2-5.
,,	5.	Fri.	Astronomy, 9-12 (1st paper), 1-3 (2nd paper).

July	1.	Mon.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,,	8.	Mon.	Medicine (Public Health), 10-12; Sanitary Law and Vital Statistics, 1-4.
,,	9.	Tu.	Sanitation, 10-12.
,,	10.	Wed.	Oral and Practical Examinations.
,,	11.	Thur.	

July	12.	Fri.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,,	22.	Mon.	Chemistry, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	23.	Tu.	Geology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,,	24.	Wed.	Human Anatomy (including Anthropology), 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.

Doctor of Science.

D.Sc. Candidates are required to lodge their Theses and proof of their eligibility with the *Dean of the Faculty of Science* at the Matriculation Office, and to pay the Fees on or before 30th April of the year in which they propose to graduate. See p. 395, and footnote 2, p. 396, as to payment of Fees, &c.

Class Prize Lists.

SUMMER SESSION, 1893.

ENGINEERING FIELD WORK.

First-Class Certificates.—1. J. W. Mackison (*Medallist*); 2. J. W. Paterson and J. Pickles—equal; 4. W. Adamson; 5. J. S. H. Chancellor; 6. J. Inglis; 7. J. W. Balfour-Paul; 8. R. Gray.

Second-Class Certificates.—9. P. Drummond and H. De Boissiére—equal; 11. L. R. Wilson.

G. F. ARMSTRONG, M.A., M.Inst. C.E., *Professor.*

STRUCTURAL AND FIELD GEOLOGY.

First-Class Certificates.—1. R. M. Clark, Aberdeen (*Medallist*); 2. J. Mackison, Dundee; 3. G. W. Miller, Dundee; 4. Sidney Unwin, Kent.

Second-Class Certificates.—5. John Inglis, Tranent; 6. A. C. Welch, Jamaica; 7. H. A. Djedjizian, Bithynia; 8. J. Baedeker, Leipzig.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

FORESTRY.

First-Class Certificate.—1. John W. Paterson.

Second-Class Certificates.—2. W. G. Haig; 3. A. Walker Reid.

FRED. BAILEY, Lieut.-Col., *Lecturer.*

WINTER SESSION, 1893-94.

PRACTICAL ASTRONOMY.

Alex. J. Burgess, First Prize.

Alex. Shand, Special Prize for skill in the use of instruments.

R. COPELAND, Ph.D., *Professor.*

GEOLOGY AND MINERALOGY.

Medals and First-Class Certificates.—G. Waterston Miller and Walter B. W. Park—equal.

Second-Class Certificates.—Thomas C. Macaulay, John Rees Roberts, Malar S. Rau, Hans Bædeker, Samuel Gray.

PRACTICAL CLASS.

Medal and First-Class Certificate.—G. Waterston Miller.

Second-Class Certificates.—Walter B. W. Park, Thomas C. Macaulay.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

ENGINEERING.

FIRST-CLASS CERTIFICATES.—1. A. Cleghorn (*Medal*); 2. Wm. Brown; 3. A. T. Duguid; 4. J. Keith Ross (*Prizemen*); 5. J. E. Pickles; 6. W. Blackadder; 7. A. C. Welch.

SECOND-CLASS CERTIFICATES.—8. A. G. G. Cumming; 9. R. A. Gray; 10. A. W. Cockburn; 11. J. Inglis; 12. H. de Boissiere; 13. R. Paterson; 14. H. Dickson.

GEOMETRICAL AND MECHANICAL DRAWING.

FIRST-CLASS CERTIFICATES.—1. J. Inglis (*Medal*); 2 J. Keith Ross (*Prize*); 3. A. Cleghorn; 4. W. Brown; 5. J. E. Pickles; 6. R. A. Gray.

SECOND-CLASS CERTIFICATES.—7. A. G. G. Cumming; 8. W. F. Scott; 9. R. Paterson; 10. H. Dickson.

G. F. ARMSTRONG, M.A., Mem. Inst. C.E., *Professor.*

AGRICULTURE AND RURAL ECONOMY.

FIRST-CLASS CERTIFICATES.—1. John W. Paterson (*Medallist*); 2. John Wilson, D.Sc., and David F. Chalmers—equal; 4. William F. Scott; 5. Alexander Whyte, and John D. B. Whyte—equal; 7. Sidney Unwin; 8. Thomas Donaldson; 9. Thomas S. Richmond, Alexander Fraser, and John M. Millar—equal.

SECOND-CLASS CERTIFICATES.—12. Edward Cowie; 13. Arthur Alsebrook; 14. Hugh W. Stone; 15. Robert Wigram, and William Orr-Paterson—equal.

REPORT ON FARM EXCURSIONS.

John Wilson, D.Sc., and David F. Chalmers (*Medallists*).

STEVEN SCHOLARSHIP OF ABOUT £75.—John W. Paterson.

HIGHLAND SOCIETY PRIZES.—Books or Instruments to the value of £10—H. S. Daine and David Chalmers—equal.

ROBERT WALLACE, *Professor.*

AGRICULTURAL ENTOMOLOGY.

FIRST-CLASS CERTIFICATES.—1. H. S. Daine (*Medallist*); 2. J. W. Paterson; 3. D. F. Chalmers; 4. Alexander Whyte; 5. T. S. Richmond.

SECOND-CLASS CERTIFICATES.—6. Alexander Fraser; 7. William Scott.

W. FREAM, LL.D., B.Sc., *Lecturer.*

FORESTRY.

FIRST COURSE.

FIRST-CLASS CERTIFICATES.—1. John W. Paterson (*Medal and Prize of £2* given by Dr Hugh Cleghorn); 2. Eric A. Nobbs.
SECOND-CLASS CERTIFICATE.—3. Alexander Whyte.

SECOND COURSE.

FIRST-CLASS CERTIFICATE.—1. Eric A. Nobbs (prize of £2 given by Dr Hugh Cleghorn).
SCOND-CLASS CERTIFICATES.—2. Alexander Whyte; 3. Herbert S. Daine; 4. John M. Millar; 5. John D. B. Whyte.

FRED. BAILEY, Lieut.-Col. R.E., *Lecturer.*

Examination Papers for Degrees in Science.

PRELIMINARY EXAMINATION.

[*For Papers in the Preliminary Subjects, see pages* 176-209.]

FIRST SCIENCE EXAMINATION.

Pure Science.

[*For Papers in Mathematics and Natural Philosophy, see Papers in these Subjects for the Degree of M.A.; and for Papers in Chemistry, Botany, and Zoology, see Papers for First Professional Examination for Degrees in Medicine.*]

Public Health.

LABORATORY WORK.

Monday, 17th July 1893.—10 *to* 12 *o'clock.*

1. How would you detect the presence of lead in a potable water? and describe a method for estimating the amount present.

2. Give in brief detail the steps you would follow in making a bacteriological examination of a soil, and mention some of the micro-organisms most commonly met with.

3. Enumerate the principal causes of hardness in water, and describe the usual method of estimating it, giving the rationale thereof.

Monday, 26th March 1894.—10 *to* 12 *o'clock.*

1. Describe in detail the methods you would adopt in determining the amount of—

(*a*) Starch,
(*b*) Albuminoid matter,

in a cereal food.

2. Organic matter in water. Discuss the comparative value of the information given by—

(*a*) Wanklyn's method.
(*b*) The Hot Permanganate method.
(*c*) Frankland's method.

3. In a sample of soil how would you determine—

(*a*) The volume of the pores.
(*b*) The capacity for water.

PRACTICAL WORK.

The following are examples of what were given at this Examination :—

(*This part of the Examination lasts four days.*)

I. Quantitative determination of—

(1) Carbonic Acid, and
(2) Ammonia in the Atmosphere.

II. Bacteriological examination of Soil, and making culture media.

III. Quantitative estimation of Lime, Magnesia, and Sulphuric Acid in a potable water.

PHYSICS.

Monday, 17th July 1893.—1 *to* 3 *o'clock.*

1. What is meant by the moment of a force? Show why it is easier to lift a trap-door by a ring near the edge than by one near the hinge.

2. State the laws connecting the pressure, volume, and temperature of a perfect gas. Under what circumstances are these laws approximately fulfilled in the case of (1) air, (2) carbonic acid gas?

3. Describe the changes of density and temperature in a mass of fresh water, originally at 10° C., as its surface is gradually cooled down to the freezing point.

4. Describe a method of determining (1) the angle of contact of any liquid with any solid ; (2) the surface tension of the liquid.

5. State the laws of refraction of light, and apply them to explain the apparent diminution in depth of a transparent sheet of water.

6. Show how the spectroscope has been applied to the measurement of the velocity of the heavenly bodies in the line of sight.

7. Explain why the speed of sound is affected by the temperature, but not by the pressure, of the air.
Compare the speed of sound in air when the temperature is 15° C., and when it is 60° C.

8. A board is immersed vertically in water to a given depth. Show how to find the whole pressure on either side of the board.

9. What is meant by a line of magnetic force? How would you determine the direction of the line of the earth's magnetic force at any point of the earth's surface? Define the magnetic meridian.

10. Trace the transformations of energy when an electric current from a voltaic battery is employed to ring an electric bell.

Monday, 26th March 1894.—1 *to* 3 *o'clock.*

1. Define the foot-pound and the horse-power? How many tons of material per hour could a 10 horse-power engine draw to the surface from a mine 500 feet deep?

2. Show how the mass of Jupiter can be compared with that of the Earth.

3. State the laws of the flow of liquid through very fine tubes, giving a sketch of the physical explanation.

4. Explain, graphically or otherwise, the law of isothermal expansion, (1) for a gas subject to Boyle's law, (2) for a gas at a temperature just above the critical temperature (3) for a saturated vapour in presence of its liquid.

5. Find what mass of steam at 100° C. will raise to the boiling point 20 lbs. of snow, mixed with 10 lbs. of water.

6. Explain how to obtain a pure spectrum. How are the colours produced (*a*) in halos, (*b*) in mother of pearl?

7. Draw a diagram to show how a single lens may be used as a magnifier. How does its magnifying power depend on its focal length?

8. Explain the behaviour of the dialectric in a Leyden Jar, and show how its specific inductive capacity may be measured.

9. Explain how the electric state of the atmosphere may be determined. What does your process really measure?

Agriculture.

AGRICULTURE.

Wednesday, 11th October 1893.—9 *to* 12 *o'clock.*

1. Regarded as manures, in what respects do nitrate of soda and sulphate of ammonia agree, and in what do they differ? When applied throughout a series of years to old grass land cut for hay, what difference would one be likely to observe in the character of the herbage produced under their influence?

2. Which of the manures mentioned in the foregoing question would you prefer for top-dressing backward oats, and why? Explain why the one is more suitable than the other for use on very light land. How does the nitrogen in such a substance as blood meal differ from the same element in nitrate of soda and sulphate of ammonia? Do the three manures mentioned all act alike, quickly as plant food, and, if not, arrange them in their order, in this respect, and give reasons for your arrangement.

3. Explain fully and carefully why a wet soil is a cold soil. Mention the effects of drainage, and show how you would reconcile this operation with the opposite one of irrigation.

4. Indicate the habits of growth and agricultural characteristics of the following grasses and clovers:—Meadow fescue, sheep's fescue, smooth-stalked meadow grass, rough-stalked meadow grass, creeping bent grass, foxtail, white clover, and cow grass.

5. What are the main points of difference, botanical and cultural, between yellow turnips and swedes? Give the indentification, life-history, and eradicative measures in the case of the diamond back moth.

6. How many hours will it take a labourer, male or female, as the case may be, to (*a*) thin an acre of turnips, (*b*) top and tail an acre of swedes, (*c*) plant the sets of an acre of potatoes, (*d*) gather an acre of potatoes, (*e*) shear a score of half-bred ewes, (*f*) plant 6000 cabbages, (*g*) dig a chain of a 3-ft. drain in light land.

7. What are the duties of the leading ploughman or ploughman steward? How much money and what quantity and variety of "kind" do Scotch ploughmen generally receive? Discuss the advantages and disadvantages of allowing farm servants to keep a cow. What is the equivalent in money of the weekly keep of a cow?

8. Give a short account of the following plants commonly met with on farms, indicating their good and bad properties:—Sheep sorrel

(*Rumex acetocella*), knot grass (*Polygonum arviculare*), black bindweed (*P. convolvulus*), common orache (*Atriplex patula*), and common fumitory (*Fumaria officinalis*).

Monday, 2nd April 1894.—9 *to* 12 *o'clock.*

1. Show how capillarity affects the fertility of soil. Which soils display this property to the greatest, and which to the least extent? How is this property affected (*a*) by cultivation and (*b*) by manuring? What can a farmer do to improve the condition of soil which is in an unsatisfactory state as regards capillarity?

2. Describe the following plants as regards (*a*) root system, (*b*) soil that they affect, (*c*) period of the year when their growth is most vigorous, (*d*) suitability or otherwise as food for stock, (*e*) yield:—*Phleum pratense*, *Anthoxanthum odoratum*, *Achillea*, *Millefolium*, *Cynosurus cristatus*, *Onobrychis sativa*, *Ononis arvensis*, *Trifolium incarnatum*, *Lotus corniculatus*, *Vicia*, *Cracca*, *Lathyrus pratensis*, *Aira caespitosa.*

3. Name the following rotation:—(1) Roots, (2) cereal, (3) seeds, (4) seeds, (5) cereal. Compare it with the Norfolk Four Course Shift. What kind of climate and style of farming does it suit?

4. On a farm of 300 acres, 200 being permanent grass-land (pasture and meadow), and 100 arable, what system of farming would you recommend in a good climate where a dairy of 30 shorthorn cows is the chief consideration?

5. Describe fully the useful field cultivation of the potato, and give a brief description of the boxing system as practised in Ayrshire and other early districts.

6. A farmer wishes to apply per acre 20 lbs. of Nitrogen, 100 lbs. of Phosphoric Acid, and 30 lbs. of Potash. Assuming that he selects Fish Guano, Superphosphate of Lime, and Kainit to furnish the substances, what quantities of these manures will he require to use?

7. How much Nitrogen, Phosphoric Acid, and Potash does a ton of well-preserved farmyard manure contain, and how do these substances compare, as regards effect, with the same materials derived from the three manures mentioned in the last question?

GEOLOGY.

Tuesday, 18th July 1893.—1 *to* 3 *o'clock.*

1. Draw a section to show a case where water might be obtained by boring.

2. What is the essential chemical composition of the Felspars, the Pyroxenes, the Amphiboles, and the Micas?

3. Give the petrological characters of Basalt, Mica-schist, Quartz-rock, Greywacké, and Serpentine.

4. Draw a section to illustrate the following structures :—Isoclinal Strata, Unconformity, Fault, Intrusive Sheet, and Dyke.

5. Give some account of Natural Fertilisers, and mention places in Britain where they occur.

6. What are the physical properties which a readily cultivable soil possesses?

7. Why do sub-soils attain usually a much greater thickness in tropical and sub-tropical than in temperate regions?

8. Describe the nature and mode of origin of Carseland, and mention places in Scotland where it occurs.

ECONOMICS.

Wednesday, 11*th October* 1893.—2.30 *to* 4.30 *o'clock.*

1. What are the economic advantages to a country of employing its capital in agriculture as compared with manufactures?

2. Explain the theory of economic rent. State the assumptions on which it is founded; and show how it is dependent on the Law of Diminishing Returns.

3. State, with a reference to examples where possible, the leading forms of sliding scales to determine rents. What are the general objections to their adoption?

4. "All the advantages gained by the march of progress go to the owners of land." Criticise this proposition by reference to improvements (*a*) in transport, (*b*) in manufactures, (*c*) in agriculture.

5. What do you consider the principal causes of the present agricultural depression?

6. Discuss the effects of the introduction of machinery on the wages of agricultural labour.

7. How far is division of labour possible in agriculture? Point out the bearing of your answer on the question of large and small farms.

FINAL SCIENCE EXAMINATION.

Pure Science.

MATHEMATICS.

NATURAL PHILOSOPHY.

The papers in Mathematics and Natural Philosophy are the same as for the Degree of M.A. with Honours in Mathematics and Natural Philosophy.

EXPERIMENTAL PHYSICS.

Friday, 13*th October* 1893.—9 *to* 11 *o'clock.*

Six Questions, only, to be answered.

Describe a method of finding :—

1. The degree of rarefaction produced by a Sprengel Air-pump.
2. The position of a "fault" in a submarine cable.
3. The latent heat of ether-vapour at ordinary temperatures.
4. The compressibility of an isotropic solid.
5. The thermal conductivity of glass.
6. The intensity of the horizontal magnetic force at any station.
7. The effect of pressure on the freezing point of water.
8. The specific inducive capacity of a liquid dielectric.
9. The surface-tension of a liquid.
10. The wave-length of any definite homogeneous light.

Saturday, 7*th April* 1894.—2 *to* 5 *o'clock.*

Describe fully a method of experimentally determining each of any *six* of the following :—

1. The critical temperature, volume, and pressure of carbonic acid.
2. The degree of exhaustion of a "vacuum" tube.
3. The temperature of water in the "spheroidal" state.
4. The constant of gravitation.
5. The speed of light in air.
6. The reduction of the indications of a constant-pressure air-thermometer to absolute temperature.
7. The resistance of air to a round-shot, in terms of the speed.
8. The length of the mean free path in air at 0° C. and 1 atm.
9. The capacity of an electric condenser.
10. The thermo-electric position of a metal.

CHEMISTRY.

FIRST PAPER.

Monday, 17*th July* 1893.—10 *to* 12 *o'clock.*

1. How are the following substances prepared :—
Cuprous chloride; chromous chloride; chromic chloride; platinous chloride; phosphorous anhydride?

2. State what you know of the constitution, with the evidence for it, of—*a*. Sulphites; *b*. Thiosulphates; *c*. Hydrosulphites; *d*. Dithionates.

3. What is meant by the term "Relative electric conductivity," as applied to a solution of a salt? What effect has dilution on the relative conductivity?

SECOND PAPER.

Monday, 17*th July* 1893.—1 *to* 3 *o'clock.*

4. Give the constitution, with the evidence for it, of the following substances: — Urea; potassium cyanide; potassium cyanate; acetic acid; tartaric acid; isatine; cinnamic acid.

5. How is diazobenzene nitrate prepared? What is the action on it of the following :—
a. Hydrochloric acid; *b*. Water; *c*. Alchohol; *d*. Cuprous cyanide; *e*. Aniline?

FIRST PAPER.

Monday, 26*th March* 1894.—10 *to* 12 *o'clock.*

1. State what you know of the properties of the Hydrides of Phosphorus, Arsenic, Antimony, and Silicon. Give a method for the preparation of any one of these bodies in a state of purity.

2. Give an account of the reactions, properties, and mode of preparation of an aqueous solution of Hydroxylamine.

3. How would you identify each of the following salts :—(*a*) Potassium Perchlorate, (*b*) Sodium Tetrathionate, (*c*) Barium Dithionate, (*d*) Ammonium Silicofluoride?

SECOND PAPER.

Monday, 26*th March* 1894.—1 *to* 3 *o'clock.*

4. Give the composition and constitution of Phenylhydrazine. What is its action on (*a*) Aldehyde, (*b*) Acetone, (*c*) Glucose, (*d*) Fructose.

5. How can Fructose be obtained from Glucose?

6. What is the constitution of Cinnamic Acid? From what source is it usually obtained? How can it be formed synthetically? What is the action of Bromine on it?

7. What is meant by the *strength* as distinguished from the *concentration* of an Acid?

HUMAN ANATOMY AND ANTHROPOLOGY.

Friday, 30th March 1894.—10 *to* 12 *o'clock.*

1. Describe the principal adaptations of the human skeleton to the erect attitude.

2. Which part of the brain of the embryo gives origin to the cerebral hemispheres? Describe the arrangement of the fissures which divide the cranial surface of the hemisphere into lobes. Describe the arrangement of the convolutions of the parietal lobe.

3. Which points on the surface of the skull do you select for measuring its length, breadth, and height? Into what groups may crania be arranged based on the proportion of length both to breadth and to height, and show how you would calculate an index of breadth and an index of height.

4. State the modifications in colour of skin, hair, and eyes in the different races of men.

PHYSIOLOGY.

Wednesday, 19th July 1893.—10 *to* 12 *o'clock.*

1. Discuss the question as to how far the beating of an amphibian heart is or is not dependent on the presence of intracardiac ganglia, citing the experiments that may enable us to decide the question.

2. Give a detailed account of the experiments whereby the velocity of an impulse in the sciatic nerve of a frog may be measured by a Myograph, and by a Differential Rheotome, with the aid of other apparatus associated with them.

3. What substances are formed as the result of the pancreatic digestion of proteids? What are the chemical reactions of the chief substances so formed, and what theories are entertained regarding the mode of their formation? What other substances may be formed in a pancreatic digest by the action of micro-organisms?

Friday, 30th March 1894.—1 *to* 3 *o'clock.*

1. Give a detailed account of the arrangements necessary for the experimental study of the polar stimulation of muscle by galvanic electricity, and describe the results obtained.

2. What results follow suspension of the activity of the kidneys, liver, pancreas, thyroid, and adrenals respectively, by excision or otherwise?

3. Give an account of the methods of Golgi for the investigation of nervous structures, and describe the minute structure of the cortex of the cerebellum as demonstrated by his method.

GEOLOGY, INCLUDING MINERALOGY AND PALÆONTOLOGY.

Tuesday, 27th March 1894.—1 *to* 3 *o'clock.*

1. What kinds of animals act the part of rock-formers? Give examples of rocks occurring in the older geological systems which owe their origin to such action.

2. How have the fiords of Norway and the sea-lochs of the Scottish Highlands originated?

3. Give the mineralogical characters of Galena, Rock-salt, Diamond, Aragonite, Barytes, Oligoclase, and Enstatite.

4. Describe a Scalenohedron and a Tetrahedron.

5. Give the petrological characters of Greywacké, Marl, Loam, Granitite, Eclogite, Andesite, Mica-schist, Serpentine.

6. Name four common ores of iron, and say how and in what formations they usually occur.

7. Define the following terms: — Inlier, Overlap, Thrust-plane, Slickensides, Hanging-wall, Strike, Deformation, Slaty cleavage, and Devitrification.

8. Describe the structure of a Trilobite, and give some account of the geological distribution of the order.

9. Give a short outline of the leading geographical and climatic changes of the Pleistocene period.

ZOOLOGY AND COMPARATIVE ANATOMY.

Tuesday, 27th March 1894.—10 *to* 12 *o'clock.*

1. Describe the nervous system of a typical Mollusc, compare it with that of a typical worm, and trace the stages by which it has probably been derived from the Vermean condition. Also describe a few of the leading modifications found in the nervous system of Mollusca.

2. Give an account of the present state of our knowledge of the origin and nature of hairs and mammary glands.

3. Describe the development, as far as the establishment of the germ layers, in Amphioxus, the Frog, and the Chick; and compare with one another the stages in all three which correspond to the Blastula and the Gastrula.

4. Explain what is meant by "protective colouring," "warning colouring," and "mimicry." Discuss the circumstances under which a group of animals might lose what was once an important (advantageous) character such as a shell or exoskeleton.

PRACTICAL ZOOLOGY.

Dissection of Holothuria and of the post auditory nerves in Gadus.

BOTANY.

Monday, 26th March 1894.—1 *to* 3 *o'clock.*

1. Give an account of the general morphology of Hepaticæ.

2. Write an account of the influence of vegetation upon climate.

3. Describe the flora of any district known to you, pointing out the relations of the plants you mention to soils and situations.

4. Briefly state the present condition of our knowledge of cell-structure.

5. Write an historical account showing the beginning and gradual development of systems of classification of plants.

PRACTICAL BOTANY.

Wednesday, 28th March 1894.—10 *to* 1 *o'clock.*

1. Make a series of sections illustrating the structure of Specimen A. Mount and leave your preparations for inspection. Sketch them, and give a list of explanatory references.

2 *to* 5 *o'clock.*

2. By aid of the Flora given you, determine the genus and species of Specimen B.

3. Refer to their natural orders Specimens C, D, E.

4. Briefly describe and identify Specimens F, G, H, I, J, K, L, M, N, O.

A. Aerial root of Monstera deliciosa.
B. Chrysosplenium alternifolium.
C. Thunbergia laurifolia.
D. Sparmannia africana.
E. Hakea saligna.
F. Fegatella conica.
G. Lathræa squamaria.
H. Borago officinalis inflorescence.
I. Marsilia ægyptica.
J. Male flower of Zamia.
K. Sphagnum cymbifolium.
L. Root of Pontederia crassipes in transverse section.
M. Spore-capsule of Pilularia globulifera in section.
N. Embryo sac of Scilla nutans.
O. Stem of Lycopodium alpinum in transverse section.

Engineering.

DYNAMICS.

Monday, 6th November 1893.—9 *to* 12 *o'clock.*

(*Not more than* TEN *Questions to be attempted.*)

1. Assuming Kepler's laws of planetary motion, deduce by any process that the planets are controlled by a central force which varies inversely as the square of the distance.

2. Interpret the expressions $\dot{x} = s\dot{d}x/ds$, &c. Find from them the values of $\dot{x}$, &c. ; and give their interpretation also.

3. What is meant by the instantaneous centre of rotation of a rigid figure moving in a plane? Prove that its position is completely determined by the directions of motion of any two points of the figure. In particular, show how to find this centre in the connecting-rod of an engine.

4. When one figure rolls on another in their common plane, show *why* the curvature of the path of any point of the moving figure depends on the curvatures of both.

5. Show that $\ddot{s} = -n^2 s$ is the differential equation of simple harmonic motion, and express n in terms of the periodic time.

A mass of 6 lbs., hung at the end of a spiral spring, increases the length by 3 inches. Find the time of vertical oscillations of the mass. Also calculate the work done in lengthening the spring by another inch. Why do we not require to know the original length of the spring?

6. A stone is thrown with a speed of 50 feet per second. What is the highest point which can be struck on a wall 70 feet off?

7. Define moment of momentum and moment of inertia, and prove any important property with regard to either.

Compare the effects of a given impulse on a sphere of uniform density when (1) it acts at the centre (2) in any line not passing through the centre. Obtain, in (2), the relation between the linear and the angular velocities produced.

8. State the condition which determines whether a ball, rotating about an axis perpendicular to its plane of flight, shall proceed, stop, or run backwards, when it falls on ground where no slipping is possible.

9. Calculate the work done in drawing a mass of 10 lbs. up a slope of constant curvature, to a height equal to half the radius of curvature, the co-efficient of friction being 1/3. [Take radius of curvature, 10 feet.]

10. What is, if any, the error in saying :—"A locomotive works at the rate of 20 horse-power per hour"; or, "at the rate of 30,000 foot-pounds per mile"?

11. What are the conditions that a system of forces, acting on a rigid

body, shall be in equilibrium? What further condition is necessary that the equilibrium may be stable? Illustrate by reference to the problem of the rocking-stone.

12. In a fluid, at rest, the pressure at any point is the same in all directions. Prove this, and show why viscosity does not interfere with the proof.

13. Define Young's modulus, rigidity, and compressibility. By considering a simple longitudinal stress, deduce the expression for Young's modulus, in terms of the rigidity and the resistance to compression, in an isotropic homogeneous material.

14. A hollow shell, with a small hole in it, is filled with water and air in such proportions as to make the mean density of the whole half that of water. At 65 feet under water it is in equilibrium. What is its mean density when it is 325 feet under water?

Saturday, 7th April 1894.—9 *to* 12 *o'clock.*

1. A projectile is projected with a given speed from a point on an inclined plane. Show that the limits of the maximum ranges lie in an ellipse, and calculate the major and minor axes of this ellipse in terms of the speed of projection and the inclination of the plane.

2. Show that the motion of a plane figure in its plane may be represented by the rolling of a curve fixed in the figure upon a curve fixed in space. Find these curves for the case of a body falling vertically under gravity and rotating about a horizontal axis with uniform angular speed.

3. Prove that the most general small motion of a rigid body in space can be represented by a screw motion about a definite line as axis.

4. A heavy uniform bar, with its ends attached to two equal spiral springs hangs horizontally, each spring being stretched 1 inch. A weight of 20 lbs. hung to the middle of the bar stretches the springs other 2 inches. Find the inclination of the bar when the weight is fixed at a distance $1/nth$ of the length of the bar from the middle point.

5. Discuss the motion of a rigid body about a horizontal axis, gravity being the only force acting. Find the length of the equivalent simple pendulum for an elliptic disc (semi-axis a, b) oscillating about a horizontal axis perpendicular to its plane and passing through a focus.

6. A cylindrical disc has the moment of inertia about the axis equal to that of a sphere of the same density and mass. Find the relative inclinations of the inclined planes down which the cylinder and sphere will roll with equal accelerations.

7. Given the normal stresses P Q R acting on the principal planes, find the elongations e, f, g, in terms of these and the constants n and k, the rigidity and resistance to compression respectively. Also given e, f, g, the principal elongations, find P, Q, R. Work out the special case which gives Young's modulus in terms of n and k.

8. Discuss the torsional rigidity of a cylindrical wire, and show that for the circular section only, can a pure twist be supported by end couples.

9. Investigate the variation of density with height in the earth's atmosphere, assuming that the air obeys Boyle's Law throughout, and is everywhere at the same temperature.

The specific gravity of air is .0013 at the pressure of 1 atmosphere. Calculate the height of fluid having this density which will produce the pressure of 1 atmosphere at the base. Find also the height in the atmosphere at which the pressure is half that at the sea-level ($\log_e a = 2.303 \times \log_{10} a$).

10. When an excentrically loaded circular disc rolls down an inclined plane, it is observed occasionally to jump, so as to move as a free body for a little. What is the cause of this interruption of the rolling motion and under what conditions is it most likely to occur?

11. A bullet, whose terminal speed in the air is 300 ft. sec., is fired vertically upwards at 1200 ft. sec. How high will it rise?

12. Given Young's modulus for an extensible cord, find the potential energy in terms of the extension of a given length of it. If it be fixed at one end to a rough cylinder and at the other to an external point, find the amount of work required to wind half of it transversely on the cylinder.

ENGINEERING.

Tuesday, 7th November 1893.—11 *to* 1 *o'clock.*

1. Show method of measuring the distance of an inaccessible object without the aid of angular instruments.

2. Make up the following page of levels in two different ways, and plot the section roughly to a horizontal scale of 50 feet to the inch, and vertical scale of 10 feet to the inch.

Distance.	Back Sight.	Fore Sight.	
	4·20		O.B.M. 143·2
0		7·20	
20		8·30	
37		12·17	
80		14·60	
	6·40		
110		8·02	
117		9·30	
134		10·01	
	3·20		
140		9·01	
200		8·73	
300		14·20	
	4·20		
350		6·30	
400		8·20	
500		9·71	

3. A plate girder, 100 feet span, carries a total load of 200 tons, including its own weight. Sketch suitable cross-section through centre, with dimensions.

4. Explain the principle of a bucket and plunger pump, and make sketch showing section of one with dimensions capable of raising 600 gallons per minute, with a velocity of plunger of 70 feet per minute.

5. What is the discharge of a cast-iron pipe, 10 inches diameter, with ruling gradient of 1 in 370; and what thickness should it be made to stand working pressure of 500 feet?

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Tuesday, 7th November 1893.—2 *to* 4 *o'clock.*

1. Describe two methods of setting off a railway curve, the tangent points being given—(*a*) with a Theodolite and (*b*) with Chain only.

2. A base line measured on an elevated plateau 10,000 feet above sea-level is 10 miles long—what is its real length at sea-level?

3. What is meant by a "fat lime" as distinguished from a "hydraulic lime," and state the proper proportions of sand to be mixed with each to form mortar, and the style of work for which each is most suitable.

4. Describe method of measuring the height of a mountain by means of a mountain barometer—describe this instrument and also the principle on which an aneroid barometer is constructed.

5. What is the reason for designing a sewer egg-shape? Sketch the cross-section of one capable of carrying 25,000 gallons per minute, filled to within 6 inches of the crown, with a gradient of 1 in 1600.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Wednesday, 8th November 1893.—11 *to* 1 *o'clock.*

1. How would you place the bubble-tube of a Dumpy-level parallel to the line of collimation?

2. Explain fully the method of constructing a skew-arch in masonry, and mention the limits of its stability.

3. Show how to find the increase in the expenditure of steam in a steam-engine for a given amount of clearance, and state what is the most advantageous adjustment for cushioning.

4. A leather driving-belt, 5 inches wide and $\frac{1}{4}$ inch thick, runs at a speed of 50 feet per second; the tension on the slack side being $\frac{1}{5}$ of that on the tight side. What H.P. will it transmit if the stress-limit be 275 lbs. per square inch?

5. Having found experimentally that a rectangular rod of timber, 1 foot long, 1 inch broad, and 1 inch deep, just breaks when a load of 125 lbs. is hung from one end, while the other is fixed in a wall from

which the rod projects horizontally; determine what the depth of a beam of the same timber, 6 feet long and 4 inches wide, similarly placed must be, in order to safely carry a uniformly distributed load of 1200 lbs., if the safe load be assumed to be $\frac{1}{5}$ of the breaking load.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Wednesday, 8th November 1893.—2 *to* 4 *o'clock.*

1. Prove the prismoidal formula, and employ it to find the cubic contents of a railway embankment, the heights, in feet, of which at every three chains are 5, 10, 20, 10, 15, 0, 12, 6, respectively,—the width at formation level being 33 feet, and the slopes $2\frac{1}{2}$ to 1.

2. The accompanying figure is the frame-diagram of a crane. Draw the reciprocal force-diagram, so as to give the stresses on the jib, stays, and crane-post, as well as the thrusts on the platform and the footstep-bearing.

3. Show by sketches what cycloidal curves should be used, or approximated to, in the faces and flanks of the teeth in the following cases:—(1) Pair of wheels in external contact; (2) Rack and pinion.

4. A parabolic arched rib, of 100 feet span and 20 feet rise, is fixed at the springing, and there is a uniformly distributed load of 100 tons on one-half of the arch, and a similar load of 200 tons on the other half. Determine the bending moment and bearing stress at 25 feet from each end.

5. A pair of railway waggon-wheels are required to carry 6 tons, the distribution of which may be 4 tons on one wheel, and 2 tons on the other. The axle-box centres are 6 feet $2\frac{1}{2}$ inches apart, and the rail-gauge is 4 feet $8\frac{1}{2}$ inches. Determine the requisite diameter of the axle both at the wheel seat and at the centre of its length, assuming 5 tons per square inch as the working stress-limit for the material.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Monday, 2nd April 1894.—9 *to* 11 *o'clock*

1. How would you adjust the line of collimation of a transit Theodolite which was found to be out of order, also do the same for a common Theodolite? What is the cause of Parallax, and how would you adjust the telescope to prevent it?

2. A suspension bridge, 100 feet span and dip $\frac{1}{8}$, is loaded with three tons per foot run, including weight of bridge; what is the tension on each chain at piers and at the middle? Sketch a steel link with eye and pin, figured dimensions for part near the piers.

3. A dock gate is 50 feet wide, has to resist a head of water of 25 feet. The sally or horizontal angle gives a rise of 10 feet at centre.

What will be the pressure per foot of surface at the cill and the total pressure on the gate? The gates are to be of greenheart. Sketch roughly a vertical section of the gate showing the position of the horizontal members with figured dimensions. The top of gates is 5 feet above water.

4. The water flowing in a stream has to be gauged by a weir 10 feet wide, height of still water above knife edge 12 inches, calculate cubic feet of water passing over it. Why are triangular notches sometimes used, and when are they most suitable? Describe briefly a method of measuring the flow of a stream when a weir could not be applied.

5. Draw a steam engine diagram showing cut-off at ¼ stroke. Mark position of opening and closing of steam and exhaust ports. What is meant by clearance and cushioning?

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Monday, 2nd April 1894.—1 *to* 3 *o'clock.*

1. Rule a level book and insert the following readings :—Datum line 20 feet below Bench Mark. Reading on B.M. 4.28, intermediate 12.41, fore sight 6.27; level changed—back sight 10.21, intermediate 15.21, fore sight 6.72; level changed—back sight 8.40, intermediate 10.4; last reading 9.9. What is the height of last position above Datum? Either the old or the collimation method may be used.

2. A circular brick sewer is 20 feet in area and has a fall of 1 in. in 100. What quantity of water will it carry when full? What is the advantage of egg-shaped sewers and in what circumstances are they used?

3. Sketch the section of a dock wall 40 feet high. Supposing a length of it came on soft ground, show and describe some means you would advise to be taken to support it.

4. A steam engine cylinder is 3 feet in area and 4 feet stroke, steam pressure 115 lbs. absolute, and cut-off ½ stroke, revolutions 72 per minute. Calculate the quantity of condensing water required. Injection water 60° F., ejected 100° F.; steam pressure at end of stroke 19.5 lbs. absolute; temperature 227° Fahr. Total quantity of heat required to raise 1 lb. of water from 32° to 227° is given by the formula—

$$885{,}200 + 235.46\,(227^\circ - 212^\circ).$$

Weight of steam at 115 lbs. absolute = 0.25 lbs. per c. ft. Account for the difference of the quantity required in practice. Why are surface condensers generally used now in Marine Engines? Do they require more or less condensing water?

5. Find the position of the neutral axis and calculate the moment of inertia of a beam—upper flange $4'' \times 1''$, lower flange $8'' \times 2''$, web $1\frac{1}{2}''$ thick, total depth 12 inches. Supposing the beam is of cast iron and

20 feet long, calculate the maximum bending moment due to a load of 5 tons at centre. Would this be a safe load?

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Tuesday, 3rd April 1894.—9 *to* 11 *o'clock.*

1. Describe the circumferenter, and mention its principal uses. Show, also, by means of an example, how to plot a needle survey by the method of co-ordinates.

2. The accompanying sketch represents the frame diagram of a loaded truss. Draw the corresponding stress diagram, and figure on each member of the truss the nature and amount of the stress to which it is subjected.

3. What disadvantage lies against a linear arch in the form of a catenary? Show how this may be obviated by the use of the "transformed catenary."

4. A belt 3 inches wide and ½ inch thick, weighing .0325 lbs. per cube inch, drives a circular saw at 1000 revolutions per minute. The belt embraces one-half the circumference of a 10-inch pulley, and transmits 10 horse-power. The friction co-efficient being .28, what are the tight and slack tensions respectively?

5. Show that when a cylindrical bar of metal is twisted, it is subjected to shears along transverse and radial longitudinal sections, or to tensions and compressions on helices at 45° to the axis.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Tuesday, 3rd April 1894.—1 *to* 3 *o'clock.*

1. A curve of twenty chains radius is required to be set out so as to connect two pieces of straight road, and the theodolite is to be used for the purpose of putting in the pegs. The angle between the two straight lengths is 102° 18′; and they meet at a point which is 7 miles 2.37 chains from the commencement of the first of the two pieces of road. Make the necessary calculations, and show how the pegs, which should be one chain apart, may be correctly placed:—the chainage being continuous from the straight on to the curve.

2. A dock wall, 10 feet wide at base and 20 feet high, the face of which batters 1 in 24 and the rear is plumb, has counterforts 6 feet wide and 12 feet apart, projecting 3 feet from the back. Determine (*a*) What thickness the wall would have to be, to be equally strong, if the counterforts were omitted, and (*b*) The minimum depth to which, in each case, the foundations should be carried in order to secure proper

stability. Assume that the earth in which the walls are founded weighs 112 lbs. per cube foot, and has an angle of repose of 32°, and that the wall masonry weighs 125 lbs. per cube foot.

3. A turbine drives the wrought iron shaft of a rolling mill, which transmits 120 horse-power and revolves 50 times a minute. Calculate the diameter of the shaft, supposing (*a*) the maximum stress in the metal were not to exceed 9000 lbs. per square inch, and (*b*) the angle of torsion were not more than $\frac{1}{8}$ of a degree per lineal foot.

The real shaft, as constructed, is $3\frac{1}{2}$-inch diameter at the bearings, and $4\frac{1}{2}$-inch diameter in the intermediate lengths. What are the corresponding maximum inch-stresses in the material?

4. Two spur wheels, 4-inch and 2-inch diameter, are geared together. The flanks of the teeth are radial; the larger wheel has 16 teeth; and the arcs of approach and recess are the same, both being equal to $\frac{2}{3}$ of the pitch. Show how to form the teeth and determine their efficiency. The frictional co-efficient is .11.

5. The boom of a parallel plate-girder is to be made in three equal parts; and each part is to be made of the same scantling throughout. Determine the most economical position of the joints.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

DRAWING.

Thursday, 9th November 1893.—11 *to* 1 *o'clock.*

Plane Geometry.

1. There are two circles of 1·5 inch and 1 inch radius respectively, and their centres are 3 inches apart. Four other circles, each 4 inches radius, are required to be drawn touching each of the two circles in question.

2. Draw (*a*) the involute of a circle of 2 inches radius, (*b*) the epicycloid formed by a rolling circle of 2·75 inches radius.

3. There is a regular hexagon of 2·15 inches side; and it is required to divide it into eight equal parts by lines drawn from one of its angles.

Solid Geometry.

1. The section made by a horizontal plane in cutting off one of the solid angles of a 3 inch cube is represented by a triangle whose sides are respectively $1\frac{1}{2}''$, $1\frac{1}{4}''$, and $1''$, and which lies in the horizontal plane.

Draw the plan and elevation of the cube.

2. A distance of 1·75 inches separates the plans of two horizontal parallel lines; and the heights of these lines are ·5″ and 1·75″ above

the horizontal plane. Find the inclination of the plane containing the lines.

3. Draw an isometric view of the object placed before you. Any suitable scale.

Thursday, 9th November 1893.—2 *to* 5 *o'clock.*

From one or other of the figured sketches supplied—(1) An Accumulator; (2) Masonry of Bridge Pier. Make the detailed drawings indicated.

Inking in is unnecessary.

Wednesday, 4th April 1894.—10 *to* 1 *o'clock.*

I.—Plane Geometry.

1. Supposing a straight line ½-inch long represents the area of an equilateral triangle of 2-inch side, obtain by geometrical methods and without calculation of any kind, a length that will represent the area of an octagon of 1¼-inch side.

2. The form of the arches of a certain bridge is a curve parallel to an ellipse whose major axis is 100 feet. The actual span of the arches is 120 feet, and they have a rise of 20 feet. Construct the curve of one arch on a $\frac{1}{480}$ scale.

3. Into an inverted, hollow right cone, whose axis is vertical, water is poured at a uniform rate. Draw a curve that will represent the rate at which the water surface in the cone will rise.

II.—Solid Geometry.

1. The plan of the axis, and the elevation of an oblique cone are given in the accompanying diagram. Draw the plan of the cone.

2. A vertical cylinder, 2 inches diameter, is cut by a plane inclined at 50°, and having a horizontal trace which touches the plan of the cylinder and makes 35° with the ground line. Draw the elevation and development of the curve of section.

3. Draw an isometric projection of the object given in the accompanying figured sketch. Scale $\frac{1}{6}$.

Wednesday, 4th April 1894.—2 *to* 5 *o'clock.*

From one or other of the figured sketches supplied—(1) Sewer Manhole and Flushing Apparatus; (2) High Speed Steam Engine Governor. Make the detailed drawings indicated.

Inking in is unnecessary.

Public Health.

MEDICINE.

Monday, 3rd July 1892.—10 *to* 12 *o'clock.*

(*Only* TWO *Questions to be answered.*)

1. State briefly the current views as to the causation of Cholera.
2. Name the chief Trade Diseases of the nervous system (occupation neuroses), and describe the morbid anatomy, clinical history, and the treatment preventive and curative of any one of them.
3. Describe the etiology, morbid anatomy, and the clinical features of Anthracosis Pulmonum.

SANITARY LAW AND VITAL STATISTICS.

Monday, 3rd July 1893.—1 *to* 3 *o'clock.*

I.—Sanitary Law.

1. *Regulated Buildings and Trades.*

What are the statutory provisions relating to the sanitary regulation of—

(*a*) Bakehouses.
(*b*) Common Lodging-Houses.
(*c*) Canal Boats.

2. *Cellar Dwellings.*

State under what circumstances the occupation of a "cellar dwelling" may be permitted under the Public Health Acts. What is the legal definition of the term "occupation" under the circumstances?

II.—Vital Statistics.

(*Two Questions to be answered, of which* 3 *must be one.*)

1. *Birth Rates and Death Rates.*

It is stated by some persons that a high birth rate necessarily involves a high death rate. Criticise this statement, giving your reasons in full for agreeing or disagreeing with the allegation.

2. *Annual Death Rates.*

You are required to determine the true annual death rate of a large town. Describe your method of procedure, and state the sources of fallacy to be avoided and the steps you would adopt to this end.

3. *Mortality and Vital Statistics.*

The following statistics for the year 1892, with respect to a town in Lancashire having an estimated population of 54,084 persons are taken from the report of the Medical Officer of Health:—

Rates per 1000 of the estimated population of											
Births.	Deaths (all causes).	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	"Fever."	Diarrhœa.	Phthisis.	Pulmonary Diseases other than Phthisis.	Death of Infants under one year of age per 1000 Births.
39.9	22.7	1.01	.24	1.02	.12	.66	.16	.48	1.44	4.47	157

Comment on these rates in reference to their correspondence with, or departure from the standard in each instance of England and Wales, and go on to state what further data you would require from the town in question to enable you to form a judgment as to the significance of one and another rate from the standard with which it is in contrast.

PRACTICAL SANITATION.

Tuesday, 4th July 1893.—10 *to* 12 *o'clock.*

I. Epidemic Measles.

In the event of Measles threatening to become epidemic in a large town of 100,000 inhabitants, state in detail the several measures you would recommend in order to prevent the spread of the disease.

What powers—statutory and other—may be resorted to for that purpose?

II. Hospital Accommodation.

The Sanitary Authority of a town of 50,000 inhabitants propose to provide hospital accommodation for—

(*a*) Infectious diseases generally, exclusive of smallpox.
(*b*) Smallpox.
(*c*) Cholera.

You are required to advise as to site or sites, arrangement of buildings upon the site or sites, amount and nature of the accommodation required.

State the special precautions (if any) necessary as regards each class of building for guarding against spread of infection therefrom to persons—

(*a*) Living outside the hospital.
(*b*) Living on the hospital premises.

Note.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

PRACTICAL SANITATION, MENSURATION, AND DRAWING.

Tuesday, 4th July 1893.—1 *to* 4 *o'clock.*

(*All Candidates must attempt Question* 5.)

1. What are the characteristics of a good sanitary tube? Mention some of the chief points to be attended to in the laying of pipe-drains.

2. How would you determine the proper capacity for the storage reservoir, as part of a catchment-basin scheme of water-supply? What are the uses of the "valve-pit," and where should it be placed?

3. What are the dangers to be apprehended from each of the several methods of the disposal of sewerage upon land, and how may they best be minimised? Give a sketch and explanation of at least two of the methods employed in the laying out and preparation of land for sewerage irrigation.

4. State generally the principles that should be followed in the construction of the wards of a General Hospital. Explain carefully how you would set about informing yourself as to the state of ventilation of any given ward, and what remedies you would suggest if it were found to be defective.

5. From the figured sketch supplied, make the drawings indicated.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Agriculture.

AGRICULTURE.

Wednesday, 11th October 1893.—9 *to* 12 *o'clock.*

1. Describe the process and discuss the advantages and disadvantages of brining butter in the churn. What is the proper strength for the brine, and how long should it remain in contact with the butter? Describe the process of salting butter for winter use.

2. Describe the construction and explain the principles of the centrifugal cream separator. What are its advantages as compared with the method of setting in shallow pans?

3. Under what circumstances would you suggest that a farmer should maintain his stock of draught horses (*a*) by breeding, (*b*) by buying in young animals? Describe the rearing of a farm colt up to the age of four years.

4. At what age is a cow most productive, and when is she most liable to contract milk fever? During any period of lactation indicate the various causes that will influence the quantity and the quality of the milk, apart altogether from the character of the food.

5. A farmer wishes to "make" turnips at the rate of three to four acres per day, the ground having been previously cultivated and cleaned, and the manure being conveniently situated. He wishes to

put on twenty loads of farmyard manure and five cwt. of artificials per acre. Show what force of labour and horses would be required, and indicate how you would distribute them.

6. Under what circumstances is finger-and-toe most liable to occur? Give an account of the symptoms and progress of the disease, and indicate preventive and remedial measures.

7. Describe the appearance and life-history of the so-called Sheep Tick (*Melophagus ovinus*). Give the composition of some dips that may be easily and cheaply compounded by farmers, and state the quantities required to treat 100 sheep.

8. A good store bullock one and a half years old is placed in a feeding box in the month of October to prepare for the Christmas market. State the quantities and kinds of food it would require per week, the probable rate of increase, the percentage of butchers' beef which it would ultimately yield, and the proportion of butchers' meat which would be represented by the gain in weight in passing from the store to the fat condition.

Monday, 2nd April 1894.—9 *to* 12 *o'clock.*

1. Give the identifying characteristics (male, female, and larval) and life-history of the large white cabbage butterfly (*Pieris brassicæ*), and describe special preventive and remedial measures in the case of threatened or actual attack.

2. At the height of the milking season how much milk, cream, butter, and skim milk cheese may be expected from a herd of thirty good Ayrshire cows? Show how you arrive at your answer.

3. What percentage of Nitrogen is there in the so-called Albuminoid constituents of a feeding cake? Of this Nitrogen what proportion is retained in the body of a fattening bullock that consumes the cake? Assuming that three lbs. of the Nitrogen that is voided by the animal are equal in value and effect to two lbs. of the same substance in Sulphate of Ammonia, what would be the money value of the manure derived from the consumption of a ton of good decorticated cotton cake?

4. Sketch a satisfactory dietary for a dairy cow under the following circumstances:—(*a*) During summer in a town, (*b*) during winter in a town, (c) during winter on a farm, (*d*) during summer on a farm. What is the effect of the following foods on the quality or character of dairy produce:—Linseed cake, decorticated cotton cake, rape cake, bean meal, bruised oats, white turnips, brewers' grains, malt dust?

5. Detail the duties of the shepherd during the lambing season in a flock of half-bred ewes. Give a short account of the method of procedure in the following cases:—(*a*) Death of a "single" lamb, (*b*) death of a ewe with twins, (c) death of a ewe from inflammation, (*d*) a ewe with a short supply of milk.

6. Sketch the plan and elevation, giving dimensions, of a double byre, with special reference to drainage and ventilation.

7. Describe fully the cultivation of the bean crop from the sowing of the seed to the stacking of the crop

AGRICULTURAL CHEMISTRY.

Thursday, 12th October 1893.—9 *to* 11 *o'clock.*

1. Give the average proportion of Silica in the straw of wheat and of beans, and state the cause of the difference.

2. State the general composition of Mountain Limestone and of Dolomite. Compare their rates of "weathering,"—mentioning the probable causes of variation,—and state in what cases, and why, Dolomite would be more advantageous than Mountain Limestone.

3. The application of Potash is peculiarly favourable in potato culture. Explain this feature. Say what salts you would employ, and give reasons for your selection.

4. How much real Sulphuric Acid (Hydrogen Sulphate) is required for the complete decomposition of Phosphates having the composition—

(*a*) 58 °/₀ Tricalcic Phosphate and 10 °/₀ Calcium Carbonate.

(*b*) 70 °/₀ Tricalcic Phosphate and 7 °/₀ Calcium Carbonate.

5. By what process would you determine the total Nitrogen in a feeding stuff, and how would you ascertain the relative proportions of Amides and Albuminoids?

6. Describe the "refraction" test for Nitrate of Soda, and say what serious objection there is to agriculturists accepting this test as a measure of purity.

7. State generally the probable variations in composition between—

(*a*) Ordinary pasture.

(*b*) The same, top-dressed with Sodium Nitrate.

(*c*) The same, sewage treated.

And state what objections there are to "Sewage Grass" in the dairying industry.

8. What conspicuous difference is there in the ash constituents of the urine of animals fed upon milk diet, or young animals fed to any extent upon grain, compared with dieting upon ordinary rough fodder.

9. Commercial Sulphate of Ammonia is sold at £12, 5s. per ton, what is the unit value of the Ammonia?

Give the comparative unit value in Nitrate of Soda at £8, 15s. per ton, and in Nitrate of Potash (73 per cent.) at £14 per ton.

10. To two sections of the same soil, in crop, is added Nitrate of Soda (sec. 1) and Nitrate of Potash (sec. 2); what difference may be observed in the composition of the drainage waters?

Tuesday, 27th March 1894.—10 *to* 12 *o'clock.*

1. Give the outstanding differences in the composition of wheat straw, cut when (*a*) "barley ripe" and (*b*) "dead ripe," and give the *ratio* of Phosphoric Acid to Nitrogen in wheat grains.

2. State approximately the composition of "bone char," "wood char," and "bone ash"; how are they prepared and in what form—if at all—are they employed in Agriculture?

3. In what states of combination do (*a*) Phosphoric Acid and (*b*)

Ammonia exist in Ammoniacal Guanos, and state whether and why treatment with Sulphuric Acid is advantageous or disadvantageous.

4. The analysis of the ash of a part of a plant shows the presence of 23 per cent. of Lime, 44 per cent. of Potash, 7 per cent. of Phosphoric Acid, and 5 per cent. of Silica. Does this indicate straw or grain, and to what order of plants must it belong?

5. What are the average percentages of Phosphoric Acid, Potash, and Nitrogen (exclusive of soil atmosphere) in fertile soils, and state what the effect would be of growing a leguminous crop on such a soil.

6. What manurial treatment do the Rothamsted experiments suggest as best suited to the following crops:—(*a*) Wheat, (*b*) Barley, (*c*) Oats?

7. Lime is said to act as an oxidiser of organic matter in soils. How would you explain this statement?

8. How would you detect the presence of Sulpho Cyanides in Ammonium Sulphate?

VETERINARY HYGIENE.

Thursday, 12th October 1893.—11.30 *to* 1.30 *o'clock.*

1. What are the general indications of fever in the lower animals? and state what should be done to allay it.

2. What are the causes of diarrhœa in calves? State the general treatment.

3. Describe and give the treatment of three skin diseases affecting sheep.

4. How is "strangles" recognised in the horse? and describe the general treatment.

5. Describe the digestion of proteid food.

6. Explain the mechanism of air entering the lung during inspiration.

Tuesday, 27th March 1894.—1 *to* 3 *o'clock.*

1. Describe the appearance, and give the number of the teeth of a five-year-old horse.

2. What bones of the horse are most liable to disease, and why?

3. Name the organs contained within the abdominal cavity of the ox, and state their functions.

4. What is the best method of preventing cattle from being affected by parasitic skin diseases?

5. What diseases are apt to be developed in sheep by exposure to cold east winds?

6. What are the methods of dipping sheep, and why are sheep dipped?

ENGINEERING.

Monday, 9th October 1893.—9 *to* 12 *o'clock.*

1. A road having a rising gradient of 1 in 300, is to be raised 5 feet in a distance of 70 chains. What will the new gradient be?

2. Explain the method of making a contour survey, and mention some of its uses when made.

3. How would you check the adjustments of (α) a Box Sextant; (β) a Dumpy Level?

4. A picture weighs 15 lbs., and is hung by a string passing over a smooth nail and fastened to two corners of the frame, 6 feet apart. Given the total length of the string as 10 feet, what is its tension?

5. Enunciate the Second Law of Motion and employ it to find the range and time of flight of a cricket ball thrown with a velocity of 50 feet per second, at an angle of 45° to the vertical.

6. What is the centre of gravity of a body? Show that the centre of gravity of a uniform triangular plate is coincident with that of three equal particles placed at the corners of the triangle.

7. Explain clearly how you would ascertain the velocity and discharge of a stream, and calculate therefrom the amount of work that might be got out of it by employing an undershot wheel.

8. What are "cams"? Give some examples of their use in machinery.

9. Calculate the indicated horse-power of a steam engine from the following data:—Cylinder, 10 inches diameter; 15 inch stroke; mean effective steam pressure, 32 lbs. per square inch; revolutions, 120 per minute.

10. Describe the various methods of preventing decay in timber, and state what kinds of timber stand best when constantly immersed in water.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Tuesday, 3rd April 1894.—9 *to* 12 *o'clock.*

1. What units of measurement are usually employed in surveying operations? Give reasons for the adoption of each.

2. When are triangles said to be "ill-conditioned"? and why?

3. Explain the principle of the Vernier, and show how, by the use of it, you would make an angular instrument read to ten seconds of arc.

4. What are meant by the errors of curvature and refraction in relation to levelling operations? How can they be avoided?

5. Calculate the weight of a grindstone, 4 ft. diameter and 8 in. thick, fitted with a wrought iron axle, the part of which within the stone is 2 in. square, and those projecting on either side are of the same section, and each 4 in. long. (Sp. gr. of stone = 2.1429; of iron = 7.7780.)

6. A brick wall, 12 ft. high and 2 ft. thick, is carried on cylindrical oak columns, 18 ft. high and 6 in. radius, placed 14 ft. apart, centre to centre. Calculate the stress per sq. in. on the columns, and to what extent they are compressed. (E = 1,450,000; weight of a cube foot of brickwork = 112 lbs.)

7. The piston of a pumping engine is 36 in. diameter, with a 3 ft. stroke. Supposing the engine makes 20 strokes per minute, what must the effective steam pressure be in order to develop 75 horse-power?

8. The mean velocity of a stream is 35 ft. per minute, and its mean

section 5 ft. × 2 ft., and it has a fall of 13 ft. Suppose a hydraulic motor of .65 efficiency is placed at the foot of the fall, and employed in grinding corn; how long will it take to grind 100 quarters, if it requires 1 horse-power to grind a single bushel?

9. The main rafters of a roof-truss are 20 ft. long, and their feet, tied by an iron rod, are 35 ft. apart. At the apex a load of 1 ton is carried. Neglecting the weight of the truss itself, calculate the stresses in each of its three members, and also the necessary size of the iron tie-rod.

10. What is the least force that will serve to drag a cube foot of wrought iron up an oak plank, placed at 30° to the horizontal? ($\mu = .62$.)

11. How would you test the quality of (*a*) a brick, (*b*) a drain pipe, (*c*) a sample of Portland cement?

12. The crank of a hoisting-engine makes 30 revolutions per minute. On the axle of this crank there is a wheel with 36 teeth, which gears with another wheel of 108 teeth attached to the axle of the winding drum, which is of 5 ft. radius. How many feet per minute will the load be raised?

13. A train running at 15 miles an hour with resistances equal to 8 lbs. a ton, arrives at the foot of a bank of 1 in 300. Suppose the steam is now cut off, how far up the incline will the train travel?

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Degrees in Science.

DOCTORS OF SCIENCE.

The names of all the Doctors of Science of this University, previously to 1889, will be found in the Historical Appendix to List of Graduates published in 1889, pp. 132-134. The following are the names of the Doctors from 1889 to 1894, both years included :—

In Mental Science.

1891. William Mitchell, M.A.
,, Robt. Mark Wenley, M.A.
1892. Chas. Mackinnon Douglas, M.A.
1892. Jas. Lewis M'Intyre, B.A.
1893. William Ingram, M.A.
,, Purnananda Chatterji.
1894. William Caldwell, M.A.

In Philology.

1893. Harry Angus Alexander Kennedy, M.A.
1894. George Barnet Gardiner, M.A.

IN PURE SCIENCE.

1889. Thomas Rhymer Marshall (Chemistry).
1890. Alex. Crichton Mitchell.
,, Hugh Marshall.
1891. William Cossar Mackenzie.
1891. Thomas Smith Murray.
1892. Jacques François Marais, B.A. (Chemistry).
1893. John Shields (Chemistry).

IN PUBLIC HEALTH.

1890. James Anderson, M.D.
,, James Andrew Blair, M.B.
,, William John Brock, M.B.
,, John Stevenson, M.B.
1892. Chas. Henry Bedford, M.D.
,, Robt. Wm. Dickinson Mac-Martin Cameron, M.D., B.Sc.
,, Alex. Cruikshank Houston, M.B., C.M., B.Sc.
1892. William George Aitchison Robertson, M.D., B.Sc.
1893. Edward Henry Ezard, M.D., B.Sc.
,, John Howard-Jones, M.B., B.Sc.
,, John Fred. Joseph Sykes, M.B., B.Sc.
,, James Buchanan Young, M.B., B.Sc.

Degrees Conferred in 1893-94.

IN MENTAL SCIENCE.

28*th October* 1893.

Purnananda Chatterji, B.A. *Thesis*—"Spiritual Meaning of Ethical Consciousness."

13*th April* 1894.

William Caldwell, M.A. *Thesis*—"The Philosophy of Schopenhauer."

IN PHILOLOGY.

George Barnet Gardiner, M.A. *Thesis*—"A Critical Examination of a Sanskrit Anthology, based on the Collation of a New Manuscript of the Work."

IN PUBLIC HEALTH.

1*st August* 1893.

Edward Henry Ezard, M.D., B.Sc. *Thesis*—"Notes on Some Points in connection with Erysipelas."

John Howard-Jones, M.B., B.Sc. *Thesis*—"The History of the Cholera Epidemic in Europe, 1892."

John Frederick Joseph Sykes, M.B., B.Sc. *Thesis*—"Public Health Problems."

James Buchanan Young, M.B., B.Sc. *Thesis*—"On the Chemical and Bacteriological Examination of Soil: with special reference to the Soil of Graveyards."

THE DEGREE OF BACHELOR OF SCIENCE.

In Pure Science.

1st August 1893.

Gilbert Laurie Anderson.
Thomas Cleghorn Baillie.
Harold Sherman Ballantyne.
Banawari lal Chaudhuri, B.A.
John Clark.
Thomas John Ireland Craig.
Alexander Wilmer Duff, M.A.
Campbell Dykes.
William Fulton, M.A.
John Henderson.
William Lewis Martin, M.A.
Harry Fisher Menzies, M.A.
Robert Somerville.
Alexander Forbes Watson.
James Rodger Watson, M.A.

13th April 1894.

John Watt Butters, M.A.
William Burns Duffus.
Robert Lees, M.A.
John Middleton.
Alexander Ritchie Scott.

In Engineering.

William Brown.
John Stewart Hare Chancellor.
Walter Hume Kerr, M.A.
James Walls Mackison.
George Moncur.

In Public Health.

1st August 1893.

Wallace Elwood Haworth, M.B., C.M.
John Morrison Hobson, M.D.
Henry Halcro Johnston, M.D.
John Macmillan, M.B., C.M.
Charles Killick Millard, M.B., C.M.
Daniel Ritchie, M.D.
John Wallace, M.B., C.M.
John Robert Whait, M.B., C.M.

28th October 1893.

Charles Hubert Bond, M.B.
James Kemp Brown, M.B.
William Thomas Crawford, M.B.
Ahmed Mirza, M.B.
David Duncan Tindal, M.B.

13th April 1894.

Thomas Frankish, M.B., C.M.
Alex. Sutherland Miller, M.D.

In Agriculture.

1st August 1893.

George Leopold K/vern.

28th October 1893.

William Adamson.
Laurence Richard Wilson.

13th April 1894.

Frederick Squires Cook.
John Waugh Paterson.
Alexander Clark Welch.

Fellowship, Scholarships, Bursaries, Prizes, &c., in Science.

I.—FELLOWSHIP, &c.

THE FALCONER MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1869 by the Subscribers to the Fund for a Memorial to Hugh Falconer, M.D. (for many years Superintendent of the H. E. I. Company's Botanic Gardens at Suharunpoor and Calcutta), and the Association for the better Endowment of the University of Edinburgh. It is of the annual value of £111, 0s. 4d.; and is for the encouragement of the Study of Palæontology and Geology. It is tenable for two years, but if the Senatus see fit, it may be held for three years, and with consent of the University Court, for four years, and is awarded after competitive examination in Natural History as applied to Palæontology and Geology. It is open to Graduates in Science or Medicine of this University of not more than three years' standing at the time of the competition. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. The Deed of Foundation will be found at p. 270 of the CALENDAR for 1870-71. The next appointment will be made in July 1894.

1888. Malcolm Laurie, B.Sc.
1891. No award.
1892. *G. S. Corstorphine, B.Sc.*

THE WILLIAM DICKSON TRAVELLING FUND.

This is a fund for the purpose of assisting Graduates of any Faculty, of not more than three years' standing, to travel for the purpose of study or research. For particulars, see p. 313.

II.—SCHOLARSHIPS.

I.—BAXTER PHYSICAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £71, 7s. 10d., tenable for two years. By the terms of the Deed of Foundation (given in the CALENDAR for 1866-7, p. 203), it is awarded to the most eminent of the Bachelors of Science, who have passed their examinations in the Physical Sciences, including Experimental Philosophy and Chemistry, either in the year preceding a vacancy, or in the year in which a vacancy occurs. Amongst other conditions the second year's tenure of this Scholarship is subject

to the condition that the holder shall have taken the Degree of Doctor in Science in the first year of his tenure of it. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100.

1890. Thos. Smith Murray, B.Sc. | 1892. James Rennie, B.Sc.
1894. *Bertram Prentice, B.Sc.*

II.—BAXTER NATURAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £71, 7s. 10d., tenable for two years. By the terms of the Deed of Foundation (given in the CALENDAR for 1866-67, p. 203), it is awarded to the most eminent of the Bachelors in Science, who have passed their examinations in the Department of the Natural Sciences, including Botany, Zoology, Physiology, and Geology, either in the year preceding a vacancy or in the year in which a vacancy occurs. Amongst other conditions the second year's tenure of this Scholarship is subject to the condition that the holder shall have taken the Degree of Doctor in Science in the first year of his tenure of it. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100.

1890. Robert Murray Leslie, M.A., B.Sc.
1891. John Stewart Norwell, B.Sc., resigned.
,, Lapsed Scholarship, James Adamson, M.A., B.Sc.
1892. G. S. Corstorphine, B.Sc.
1893. Lapsed Scholarship, Gregg Wilson, M.A.
1894. *John Smith Flett, M.A., B.Sc.*

III.-VIII.—VANS DUNLOP SCHOLARSHIPS.

These Scholarships may be held by Science Students. They are each of the annual value of £100, and are tenable for three years, on condition that the scholar submits annually—(1.) A certificate of attendance on lectures or laboratories approved by the Senatus; or (2) a certificate of having acted as an assistant to a Professor in this or some other University; or (3) a written report of his work done during the year, together with a Thesis composed by himself in connection with some part of that work.

III.—MATHEMATICS.[1]

The next Competition will take place in April 1895.

IV.—NATURAL PHILOSOPHY.[1]

The next Competition will take place in April 1895.

[1] For particulars, see "Scholarships" in Faculty of Arts.

V.—AGRICULTURE AND RURAL ECONOMY.

This Scholarship is open to all Matriculated Students who have regularly attended classes in the University for not less than two and not more than six years, and who have attended the Class of Agriculture and Rural Economy within two years of the date of Competition. The subjects of Examination are Agriculture, Chemistry, Botany, and Veterinary Science. The next Competition will take place in April 1895.

The Examiners are the Professor of Agriculture and an Examiner nominated by the Senatus.

1889. Thos. H. Middleton, B.Sc. | 1892. T. A. Coward.

VI.—CHEMISTRY AND CHEMICAL PHARMACY.[1]

The next Competition will take place in March 1897.

VII.—NATURAL HISTORY, INCLUDING GEOLOGY AND BOTANY.[1]

The next Competition will take place in April 1895.

VIII.—ENGINEERING AND MECHANICAL AND USEFUL ARTS.

The Examination is similar to that for the Second B.Sc. Examination for the degree in Engineering, with the addition of questions on prescribed books treating of Engineering and Mechanical and useful Arts.

The Competition is open to all Matriculated Students who have been in regular attendance on the Class of Engineering for at least two Winter Sessions, and who have not been Students of the University for more than four years. The conditions of tenure of this Scholarship may be altered before the next election. The next Competition will take place in April 1897.

The Examiners are the Professors of Engineering and Natural Philosophy.

1891. J. R. Dick, B.Sc. | 1894. *W. G. Rennie, B.Sc.*

IX.—STEVEN SCHOLARSHIP IN AGRICULTURE.

This Scholarship was founded in 1882 by the Misses Steven of Bellahouston in memory of their brother Moses Steven, Esq. It is of the value of £75, and is awarded annually, in connection with the Class of Agriculture, the subjects of examination being Agriculture and General and Agricultural Chemistry.

The Scholar is required to visit the annual exhibitions of the four leading agricultural societies, or such as the Professor of Agriculture shall appoint, and to report on his visit or visits to the satisfaction of

[1] For particulars, see "Scholarships" in Faculty of Medicine.

the Professor of Agriculture. The Exhibitions which the Scholar is required to visit are:—

The Royal Agricultural Society of England.
The Bath and West of England Agricultural Society.
The Highland and Agricultural Society of Scotland.
Royal Agricultural Society of Ireland.

See Deed of Foundation at p. 397 of CALENDAR for 1882-83.

1890. Henry Crabtree.
1891. John Campbell.
1892. George P. Foaden.
1893. Alexander Goodfellow.
1894. *John W. Paterson.*

X., XI.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships have been instituted in connection with the Chemical Laboratory of the University, each of the value of about £30 per annum, tenable for one year, and to be awarded annually at the end of the Winter Session. Each Scholarship is awarded to the student whom the Professor of Chemistry thinks most deserving of those who have worked during that Winter Session in the Chemical Laboratory of the University. The scholars must work during the Summer and Winter Sessions succeeding their appointment in the Chemical Laboratory of the University, and must assist the Professor of Chemistry in such manner as he thinks fit in each case, and the scholars are not required to pay fees for the laboratory. In case of resignation of a scholar, or of a scholar failing to fulfil the conditions, the Professor of Chemistry may, if he thinks proper, recommend a student working in the Chemical Laboratory for the remainder of the Scholarship so become vacant, the new scholar so appointed to perform the duties and receive the payments during the remainder of the time for which his predecessor was appointed. Scholars may, in cases of great distinction, be appointed for a second time.

1889. William Cossar Mackenzie.
,, Lapsed Scholarship, Thomas S. Murray.
1890. Alexander Dingwall White.
1891. Theodore Rettie.
1892. William White Taylor.
1893. A. F. Watson.
1894. *Matthew Marshall.*

XII.—NEIL ARNOTT SCHOLARSHIP IN EXPERIMENTAL PHYSICS.[1]

Is awarded annually in April.

1 For particulars, see "Scholarships" in Faculty of Arts.

XIII.—THE MACKAY SMITH SCHOLARSHIPS.

These Scholarships were at first intended to have been held in Edinburgh and Glasgow Universities alternately, and were so held in Edinburgh for the Sessions 1883-84 and 1884-85, and in Glasgow for the Sessions 1885-86 and 1886-87. It was, however, afterwards arranged, instead of the Scholarships alternating between the two Universities, that the proceeds of the present investment should be divided—one half being retained by the University of Edinburgh, and the other half transferred to the University of Glasgow, so that each University now acts independently. The portion of the proceeds at present falling to Edinburgh is £50 annually, which provides one Scholarship in Natural Philosophy and one in Chemistry, each of the annual value of £25, tenable for two years, and to be held under such regulations and conditions as the Senatus may from time to time direct. The Scholarship in Natural Philosophy is open for competition to Students who have attended the Class of Natural Philosophy, and the Scholarship in Chemistry to Students who have attended the Class of Chemistry, both in this University. The successful Candidate for the Scholarship in Natural Philosophy is bound to attend the Class of Natural Philosophy, or to prosecute the study thereof, in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve; and the Scholarship in Chemistry is held under similar conditions as regards attendance on the Class of Chemistry, or the prosecution of the study thereof. The next Competition for these Scholarships will take place in April 1896.

1889. J. F. M'Kean, M.A. (lapsed Nat. Phil.)

1890. R. W. Briggs (Chem.)
James Holm (Nat. Phil.)

1892. *J. W. Horne*, M.A. (Chem.)
J. G. Anderson (Nat. Phil.)

1894. *George Thomson* (Chem.)

1894. *J. F. Cameron* (Nat. Phil.)

XIV.—ROYAL COMMISSION FOR EXHIBITION OF 1851 PHYSICAL SCIENCE SCHOLARSHIP.

The Commissioners in 1891, and again in 1892, gave this University the power of nominating a Student of not less than three years' standing to a Scholarship of £150 a-year, tenable for two years, and which may be extended to three years. The Scholarship is limited to those branches of Science (such as Physics, Mechanics, and Chemistry) the extension of which is specially important for the national industries, and may be tenable in any University or other Institution to be approved by the Commissioners. See Regulations, p. 544 of CALENDAR for 1891-92.

1891. John Shields, B.Sc., Ph.D.
1892. Andrew J. Herbertson.
1893. *H. W. Bolam, B.Sc.*
1894. *J. C. Beattie, B.Sc.*

XV., XVI.—THE ARTHUR TREVELYAN SCHOLARSHIPS IN ENGINEERING.

Two Arthur Trevelyan Scholarships in Engineering, of about £20 per annum, for proficiency in Engineering and the Mechanical and useful Arts, tenable in this University for two years. Candidates must not be more than nineteen years of age, must have passed the preliminary examination or its equivalent; and must not have attended more than one winter and one summer course in Engineering and field work respectively, either in this University or elsewhere. The subjects of examination are (*a*) Mathematics, as far as the subjects required for the first B.Sc. examination in Engineering; (*b*) Physics to the same extent; (*c*) Engineering (the subjects of the previous winter session and field work); (*d*) geometrical drawing and elementary graphics. See Excerpt from Deed, page 538 of CALENDAR for 1892-93.

Of the foregoing Fellowship, Scholarships, Bursaries, and Prizes, the following are open during the Winter Session 1894-95.[1]

SCHOLARSHIPS.[1]

1. *Vans Dunlop Scholarship in Natural Philosophy* (No. 10, page 315). The Examinations will begin on 2nd April 1895, at 2 P.M., and will be (in as far as convenient and practicable) combined with the Examination for Honours in the Department of Mathematics. Names of Candidates to be entered *on or before* 15th March.

2. *The Vans Dunlop Scholarship in Mathematics* (No. 11, page 315). In addition to the ordinary Honours' Examination, papers will be set on special subjects. The questions, some of which will be texts for short dissertations, will be set so as to allow the candidate to specialise his reading in one or other of the following lines:—(*a*) Higher Algebra (Salmon, I.-XVII.), Higher parts of Differential and Integral Calculus —for example, Definite Integrals, Fourier's Theorem, Elliptic Integrals, Differential Equations (Forsyth); (*b*) Theory of Invariants (Salmon, I.-XVII.), Projective Geometry, Higher Plane Curves (Salmon, Chapters I.-V.); Geometry of Three Dimensions (Salmon, Chapters I.-XIII.) The Professor of Mathematics will give advice regarding a course of

[1] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see above, where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c. The University Authorities reserve the right to exclude Candidates who do not comply with the Regulations as to Entering, &c., for Scholarships, Bursaries, &c.

reading for the examination. The Examination will begin on 1st April 1895, at 9 A.M. Names of Candidates to be entered *on or before* 15th March.

3. The *Vans Dunlop Scholarship in Natural History, Botany, and Geology* (No. 2, page 690). The several subjects will be co-equal in the Examination, and the Examination in each will be similar to, and will take place at the same time as, the second B.Sc. Examination. The next competition will take place in March 1895:—viz., Botany, 25th March, at 9 and 1; Zoology, 26th March, at 9 and 1; Geology, 27th March, at 9 and 1. Names of Candidates to be given in *on or before* 15th March.

4, 5. *Two Hope Prize Scholarships in Chemistry.* See Nos. X. and XI., page 435.

7. *Neil Arnott Scholarship for Experimental Physics*, of £38, 10s., is awarded annually to the most distinguished student in the Physical Laboratory.

8. *Arthur Trevelyan Scholarships* for proficiency in Engineering and the Mechanical and Useful Arts. See No. XV., page 437.

9. *Vans Dunlop Scholarship in Agriculture* (No. V., page 434). The subjects of examination are Agriculture, Chemistry, Botany, and Veterinary Hygiene. The Examination will take place on 4th and 5th April 1895. Agriculture, 27th March, at 9; Chemistry, 25th March, at 9; Botany, at 1; Veterinary Hygiene, 11.30. Names of Candidates to be given in *on or before* 15th March.

10. *Steven Scholarship in Agriculture* (No. IX., page 434). The Subjects of Examination are Agriculture and General and Agricultural Chemistry. The Competition will take place in March 1895, viz., Chemistry, 25th March, at 10; Agriculture, 28th March, at 9; Agricultural Chemistry, at 1. Candidates to enter names *on or before* 15th March.

Competitors for Fellowships and Scholarships must have studied the subjects of Examination at the University of Edinburgh. No Fellowship or Scholarship can be held along with any other Fellowship or Scholarship.

BURSARIES.[1]

1, 2. *Two Sibbald Bursaries*, of £30 a year, tenable for three years (No. LI., page 285).

3-7. *Five Heriot Bursaries*, each of the annual value of £30, and tenable for three years (No. I., page 283).

8. *Renton Bursary*, of about £18, 8s. 6d. (No. LXIX., page 294).

9. *The Donald Fraser Bursary*, of £50 (No. LXXXI., page 297).

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1 See footnote, page 437.

10-13. *Four Buchanan Bursaries*, each of £35 a year, and tenable for three years, and may be extended to four years, are open for competition among young men of the names of Buchanan, M'Millan, M'Auslan, M'Wattie, and Risk. For particulars, apply to G. S. Buchanan, Esq., 85 Candleriggs, Glasgow.

University Bursaries cannot be held along with any other Bursary.

PRIZES.[1]

1. *The Gunning Victoria Jubilee Prizes in Zoology and Public Health and Medical Jurisprudence* (No. XI., page 688).
2, 3. *Two Newton Bursaries or Prizes* (No. LXXI., page 295).
4. *The Kelland Memorial Prize in Mathematics* (No. 12, page 317).
5. *The Lord Rector's Prize* (No. 2, page 316).
6. *The Dobbie Smith Gold Medal in Botany* (No. 10, page 691).
7. *The Anderson Henry Prize* (No. 15, page 691).
8. *The Ellis Prize in Physiology* (No. 13, page 691).
9, 10. *Two Gray Prizes* (Nos. 7, 8, page 317).

WILLIAM DICKSON TRAVELLING FUND.

The William Dickson Travelling Fund (page 313).

N.B.—*Scholars, Bursars, or Fellows must apply to the Dean of the Faculty of Science for Certificates to entitle them to draw the instalments due of Science Scholarships, &c., and to the Factor for payment thereof, within three months after they have become payable, otherwise they will be regarded as having resigned. Any who desire to resign must at once announce this to the Dean and to the Factor.*

JAMES GEIKIE, D.C.L., LL.D., F.R.S., &c.,
Convener of the Science Degrees Committee.

[1] See footnote, page 437.

III.

FACULTY OF DIVINITY.

1894-95.

Dean.

PROFESSOR MALCOLM CAMPBELL TAYLOR, D.D., &c.
6 *Greenhill Park.*

Programme of Classes.

FACULTY OF DIVINITY.

The Classes will be as follows:—

Classes.	Days of Opening, and Hours of Lectures.	Professors.	Class Fees.
Divinity.....	30 Oct., 12 o'cl.	Prof. Flint, ...	£3 3
Ecclesiastical History.	30 Oct., 11 ,,	Prof. Taylor,....	3 3
Biblical Criticism.....	30 Oct., 10 ,,	Prof. Charteris,.	3 3
Hebrew—Junior Cl. .	30 Oct., 1 ,,	Prof. Dobie, ...	3 3
Senior Cl. .	30 Oct., 2 ,,	.....	3 3
Arabic—Senior Class. (*Tues. & Thurs.*)	30 Oct., 3 ,,	.....	3 3
Syriac—Senior Class. (*Mond., Wed., & Frid.*)	31 Oct., 3 ,,	.....	2 2

The Summer Preparatory Classes in Elementary Hebrew and Elementary Arabic, conducted by the Class-Assistant under the superintendance of the Professor, open on 1st May, at 10 A.M., and 11 A.M. Fee for Hebrew, £1, 11s. 6d.; and for Arabic, £2, 2s.

Gifford Lectureship, for "promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term." *Lecturer*—Emeritus-Professor Campbell Fraser, D.C.L., LL.D.

This Course of Ten Lectures will be delivered during November, December, January, and February. Dates will be afterwards announced.

Gunning Lecturer, . . { Hugh Macmillan, D.D., LL.D.

Class-Assistant in Hebrew and Semitic Languages, . . { William B. Stevenson, M.A.

Examiners for Degree of B.D., { Thomas A. Bickerton, B.D. / William Hastie, D.D.

MATRICULATION FEES.

For the Academical Year, 1st October to 1st October, . £1 1 0
For the Summer Session only, 1st May to 1st October, . 0 10 6

CURRICULUM FOR THE MINISTRY IN THE CHURCH OF SCOTLAND.

The Laws of the Church of Scotland require that every Theological Student, who desires to qualify himself for the Ministry, should attend the Class of *Divinity*, either during *three full and regular Sessions*, or during *two regular and three partial Sessions*;—and also that he should regularly attend during two Sessions each of the Classes of *Hebrew*, *Ecclesiastical History*, and *Biblical Criticism*.

Entrance Examinations.

(1.) Students, before enrolment *for the first year* of their curriculum with a view to the Ministry in the Church of Scotland, must produce to the Professor of Divinity Certificates of their having satisfactorily undergone an Examination in the subjects embraced in the *Curriculum of Arts*, and also in the Elements of Hebrew Grammar. By Act IX. of General Assembly 1872, it is ordained that this Examination shall be conducted at each of the four Scottish Universities, shortly before the commencement of every Session, by four Examining Committees, consisting of members elected by the adjoining Synods, with Conveners nominated by the General Assembly. *The Convener of the Committee for the University of Edinburgh is the Rev. John Alison, D.D., Minister of Newington.* The time of the Committee's meeting and the prescribed subjects of Examination will be timeously advertised in the *Missionary Record* of the Church of Scotland.

(2.) Students, before enrolment at the beginning of *every Session after the first* of their course in Divinity, must produce certificates of their having satisfactorily undergone the Examinations prescribed by their respective Presbyteries. For subjects of Examination prescribed by the *Presbytery of Edinburgh*, see *Appendix to Calendar.*

Discourses.

Every Student of Divinity is required during his curriculum to deliver with approbation *six* Discourses upon subjects prescribed by the Professor of Divinity, viz., a Homily, a Latin

Exegesis, a Lecture, a popular Sermon, a Hebrew Exercise on a passage of the Old Testament, and an Exercise with additions on a passage of the Greek New Testament.

The following Regulations have been made by the Faculty of Theology in regard to the delivery of these Discourses. (1.) Students of the *first* year shall give in their *Homily* to the Professor of Divinity not later than 1st February ; (2.) Students of the *second* year shall give in their *Latin Exegesis* not later than the 24th December, and shall be prepared to deliver their *Lecture* not later than the 3rd January ; (3.) Students of the *third* year shall give in their *Hebrew Exercise* and their *Greek Exercise* with additions, not later than the 24th December, and shall be prepared to deliver their *Popular Sermon* not later than the 2nd of February.

Attendance at Foreign Universities.

The General Assembly of 1868, with the consent of a majority of Presbyteries, enacted and ordained :—(1.) That all candidates for the ministry shall attend during at least *two sessions* the Theological Classes at one or more of the Universities of Scotland, and shall deliver, with approbation, the Six Trial Discourses required by the Acts of the General Assembly ; and (2.) That any Student who wishes to prosecute the remainder of his Theological Curriculum at any Protestant University or Universities not within the bounds of this Church, shall, before repairing thither, undergo satisfactory examination by the Presbytery with which he is connected, and shall, moreover, satisfy the same Presbytery in regard both to the Classes which he proposes to attend, and to the proficiency he has acquired in the language used in the Foreign University in which he intends to study.

Courses in the Faculty of Divinity.

I. DIVINITY.

PROFESSOR FLINT.

The course of study in this class extends over three Sessions. The Subjects of the Lectures during 1894-95 will be :—1. Theological Introduction and Encyclopædia. 2. Philosophy of Religion. 3. Antitheistic Theories. 4. Eschatology.

Lectures will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays at 12 o'clock. Fridays will be devoted partly to the hearing of Discourses and Exercises, and partly to Lectures.

The work of the class includes two written examinations and an essay.

II. HEBREW AND SEMITIC LANGUAGES.

PROFESSOR DOBIE.

A.—HEBREW.

Junior Class—1 *to* 2.

Grammar and Exercises (Davidson's Hebrew Grammar) from § 31. Translations into Hebrew Prose.

Reading and Explanation of easy Prose and Poetical Passages in the Old Testament. During Session 1894-95 the Book of Genesis, beginning at Chapter xxxvii., and selected Psalms will be read.

Oral and Written Examinations.

In connection with this Class there is a *Tutorial Class* conducted by the Class-Assistant, which meets at an hour found most convenient for the Students, on three days weekly during the Session, and which members of the Ordinary Class may attend without additional fee.

There is also a Preparatory Class in Elementary Hebrew, which meets during the SUMMER *Session, and for which the fee is £1, 11s. 6d.*

Senior Class—2 to 3.

Grammar (Davidson or Gesenius). Müller's Hebrew Syntax. Hebrew Prose Composition.

Reading and Explanation of portions of the Poetical and Prophetic Books of the Old Testament. During Session 1894-95, Isaiah, Chapters i.-xxiii. ; Psalms, Book v. (Pss. cvii.-cxxviii.), and the Book of Hosea will be read critically.

Tuesdays and Thursdays will be devoted to Hebrew Prose Composition and the Reading of non-biblical unpointed texts.

Oral and Written Examinations.

B.—ARABIC.

The work of the Class shall consist of Advanced Grammar and Composition, following Wright's *Arabic Grammar*, and the reading of the more difficult sections in Arnold's *Chrestomathia Arabica* and Noeldeke's *Carmina Arabici*. There is also a Preparatory Class in Elementary Arabic, which meets during the Summer Session, and for which the fee is £2, 2s.

C.—SYRIAC.

It is intended that this shall be an Advanced Class, to meet on Mondays, Wednesdays, and Fridays, at 3 o'clock, under the Professor. The work of the Class will consist of instruction in Grammar and Composition and the reading of the Texts in Roediger's *Chrestomathia Syriaca*.

For the Regulations of the Jeffrey Scholarship in Hebrew and Oriental Languages, — value about £80, — see under "SCHOLARSHIPS IN DIVINITY."

For the Regulations of the Vans Dunlop Scholarship in "Hebrew and Oriental (Semitic) Languages,"—value about £100 annually for three years,—see under "SCHOLARSHIPS IN ARTS" and "SCHOLARSHIPS IN DIVINITY."

III. ECCLESIASTICAL HISTORY.

PROFESSOR TAYLOR.

1. *Lectures*—Mondays and Tuesdays. — On The Rise and Diffusion of Protestantism.

2. *Lectures*—Wednesdays and Thursdays.—On The Reformation in Scotland to the Death of Knox.

3. *Text-Book*—Fridays.—Kurtz's "History of the Christian Church." First Division; First Section.

The work of the class includes three written examinations.

For the Regulations of the Vans Dunlop Scholarship in "History,"—value about £100 annually for three years,—see under "SCHOLARSHIPS IN ARTS" and "SCHOLARSHIPS IN DIVINITY."

IV. BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

PROFESSOR CHARTERIS.

It is intended to occupy the principal portion of next Session with (1) the study of Old Testament Apocrypha, New Testament Apocrypha, and other extra-canonical Books, *or* with the Epistle to the Colossians and the Pastoral Epistles of St Paul; (2) Introduction to Textual Criticism, as in Scrivener's "Introduction;" and (3) early evidence for the Canonical Gospels, as in the Professor's text-book, "Canonicity."

There will be written and oral examinations, in which all regular students are required to take part; and subjects of occasional voluntary essays will also be suggested.

LECTURESHIPS.

I.—GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—Emeritus-Professor CAMPBELL FRASER, Hon. D.C.L. (Oxford) and LL.D. (Glasgow and Edinburgh).

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term."

It is proposed that the first five Lectures of the course (1894-95) should be delivered in November and December

1894, and the remaining five Lectures in January and February 1895.

According to the Trust Deed, "the lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind; they may be of any denomination whatever, or of no denomination at all; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion; or they may be so-called sceptics or agnostics or free-thinkers;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

II.—THE GUNNING VICTORIA JUBILEE LECTURESHIP.

Lecturer—HUGH MACMILLAN, D.D., LL.D.

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded a Lectureship in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Lectureship."

The Gunning Lectureship is a triennial appointment of the value of £100, and the appointment shall be made by the Faculty of Divinity. The lecturer may be any Scottish Presbyterian clergyman at home, or in the Mission field, eminent in

Science, Philosophy, Language, Antiquity, or Sociology, and the Lectures may be delivered in the University of Edinburgh, or such other place as the Faculty may appoint.

The next appointment will be made at the close of Session 1895-96. See Revised Scheme, p. 519 of CALENDAR 1889-90.

Class Prize Lists.

SUMMER SESSION, 1893.

HEBREW AND ORIENTAL (SEMITIC) LANGUAGES.

ELEMENTARY HEBREW CLASS.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Thomas W. Wilson, M.A., Perthshire; 2. Andrew Tweedie, Swinton, Duns (*Medallists*); 3. H. M. Lamont, M.A., Edinburgh, and Alexander B. Macdonald, Old Cumnock—equal; 5. John Henderson, M.A., Morebattle, Kelso; 6. John M'C. Robertson, M.A., South Queensferry; 7. Walter R. Henderson, M.A., Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—8. George White, Dumfries; 9. Saville Middlemass, Edinburgh.

JOHN W. MURRAY,
Assistant to the Professor of Hebrew, &c.

WINTER SESSION, 1893-94.

DIVINITY.

THIRD YEAR.

PRIZEMEN.—1. Thomas Marjoribanks, M.A., and Wm. B. Stevenson, M.A.—equal; 3. H. H. Murray, M.A.; 4. John Burr, M.A.; 5. John H. Dickie, M.A.

HONOURABLE MENTION.—John Ritchie (1), M.A., and J. E. Mackay, M.A.—equal.

SECOND YEAR.

PRIZEMEN.—1. William J. Pennell, M.A.; 2. T. Grahame Bailey, M.A.; 3. William Smith, M.A.; 4. Alex. R. Howell, M.A.

FIRST YEAR.

PRIZEMEN.—1. Thomas O. Duncan, M.A.; 2. J. L. Maclean Watt, M.A.; 3. William Gracie, M.A.

SPECIAL PRIZE.—Sydney Smith, M.A.

HONOURABLE MENTION.—James C. Colvin, M.A., and Walter R. Henderson, M.A.—equal.

R. FLINT, D.D., *Professor.*

BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

PRIZEMEN.—1. William B. Stevenson, M.A. (*Medallist*); 2. Thomas Marjoribanks, M.A., and John Ritchie (1), M.A.—equal; 4. Thos. Grahame Bailey, M.A., and Wm. J. Pennell, M.A.—equal; 6. William Smith, M.A.

HONOURABLE MENTION.—John Burr, M.A.; James E. Mackay, M.A.; and John Ritchie (2), M.A.

ESSAYS.—1. John Ritchie (1); 2. H. H. Murray, M.A.; 3. Thomas Marjoribanks, M.A., and A. R. Howell, M.A.—equal.

A. H. CHARTERIS, D.D., *Professor.*

ECCLESIASTICAL HISTORY.

PRIZEMEN.—1. William B. Stevenson, M.A., Forfarshire (*Medallist*); 2. Thomas Marjoribanks, M.A., East Lothian; 3. John Burr, M.A., Forfarshire; 4. Cameron Mackay, Sutherlandshire; 5. Louis C. D. Douglas, Edinburgh; 6. Robert Venters, M.A., Stirling; 7. John Ritchie, M.A., Edinburgh, and John Ritchie, M.A., Callander—equal.

HONOURABLE MENTION.—9. John Henderson, M.A., Morebattle, Kelso; 10. Walter R. Henderson, M.A., Edinburgh; 11. William L. Gordon, M.A., Kincardineshire.

M. C. TAYLOR, D.D., *Professor.*

HEBREW AND SEMITIC LANGUAGES.

JUNIOR HEBREW CLASS.

FIRST-CLASS HONOURS.—1. Andrew Tweedie, M.A., Berwickshire (*Medallist*); 2. Walter R. Henderson, M.A., Edinburgh; 3. Thomas W. Wilson, M.A., Scone.

SECOND-CLASS HONOURS.—4. Sydney Smith, M.A., Edinburgh; 5. John Henderson, M.A., Morebattle; 6. Walter Lamb, M.A., Ednam; 7. George Drummond, M.A., Oban; 8. Saville Middlemass, M.A., Edinburgh; 9. W. L. Gordon, M.A., Glenbervie.

SENIOR HEBREW CLASS.

FIRST-CLASS HONOURS.—1. T. Grahame Bailey, M.A., Punjab, India, and W. Roger Hume, M.A., Edinburgh—equal (*Medallists*); 3. W. J. Pennell, M.A., Fifeshire; 4. William Smith, M.A., Kincardineshire.

SECOND-CLASS HONOURS.—5. James Cæsar, M.A., Dumfries; 6. Colin C. Nicholas, Devonshire; 7. D. G. Hamilton, M.A., Birkenhead; 8. Thos. S. Macpherson, M.A., Argyllshire; 9. Hugh Reid, M.A., Ayrshire.

Mr Alex. Grant was present at two examinations only, in which he obtained second-class honours.

ARABIC CLASS.

HONOURABLE MENTION.—David M. Kay, M.A., B.D., B.Sc., Perthshire, and W. Roger Hume, Edinburgh.

SYRIAC CLASS.

HONOURABLE MENTION.—David M. Kay, M.A., B.D., B.Sc., Perthshire.

J. DOBIE, B.D., *Professor.*

Graduation in Divinity.

—o—

REGULATIONS FOR THE DEGREE OF BACHELOR OF DIVINITY.

APPROVED OF BY THE CHANCELLOR OF THE UNIVERSITY 17th October 1870, and 17th April 1872.

I. No one shall be admitted as a Candidate for the Degree of Bachelor of Divinity unless he be a Graduate in Arts of one of the Universities of Scotland, or of England, or of Ireland, or of a Colonial University, whose degrees shall, for this purpose, have been specially recognised by the University Court.

II. This Degree shall be conferred only after the Candidate has completed his Theological Curriculum with a view to the ministry in the Church or Denomination to which he belongs, and after he has passed a satisfactory examination in the various branches of Theology which are taught in this University.

III. Candidates who are not Masters of Arts of the University of Edinburgh must have attended two classes in one or more of the Faculties of this University.

IV. The subjects of examination for the Degree of Bachelor of Divinity shall be arranged in two departments:—The First Department embracing—(1) Hebrew, and (2) Apologetic Theology, or the Evidences of Natural and Revealed Religion; and the Second Department embracing—(1) Ecclesiastical History, (2) Systematic Theology, and (3) Biblical Criticism and Biblical Antiquities.

V. Candidates who have completed their Theological Course may be examined in either of these departments, and may defer to some future occasion their examination in the other department, provided always that there be not a greater interval than two years between their two examinations.

VI. Students who have completed all the Sessions but one of their Theological Course may be admitted to examination in the first department.

VII. The examinations shall be conducted by the Professors of the Theological Faculty with the assistance of two Examiners, being Bachelors of Divinity of one of the Universities of Scotland, to be nominated by the University Court.

VIII. The Examination in the First Department shall take place at, or soon after, the commencement of the Theological Session; and the Examination in the Second Department at, or soon after, the close of the Theological Session—power being reserved to the Senatus Academicus, should they see cause, to appoint the examination in both departments to take place at either of these periods.

IX. The Fee for examination for the Degree of B.D. for Candidates who began attendance on classes in the Faculty of Divinity before October 1894 is Three Guineas, payable in advance; but when the examination is taken at two periods a Fee of two Guineas is payable for the first, and One Guinea for the second examination.[1]

For those who begin attendance on Classes after 1st October 1894, the fee is £5, 5s.; but when the Examination is taken at two periods, the fee for the first Examination is £3, 3s., and for the second, £2, 2s. Candidates who fail to pass in one or more subjects pay a fee of 10s. 6d. for re-examination in each subject.

There will be an examination in both departments on Tuesday, 23rd October 1894, and two following days; and also on Wednesday, 3rd April 1895, and two following days. (23rd October and 3rd April), Hebrew, 10 A.M., and Apologetics, 2 P.M.; (24th October and 4th April), Ecclesiastical History, 10 A.M., and Divinity, 2 P.M.; (25th October and 5th April), Biblical Criticism, 10 A.M.,—three hours being allowed for each Subject.

Candidates are required to communicate their names, together with evidence of their being qualified in terms of the above Regulations, to the Dean of the Faculty of Divinity, at least one week before the day appointed for the Examination, and to pay the fees[2] at the Matriculation Office on or before 18th October 1894, and on or before 19th March 1895, for the Examinations in October and April respectively.

[1] Every Candidate must matriculate before Examination or Graduation. He is also required before Graduation to pay the Fee of £1 for Registration as a member of the General Council, which is compulsory by Act of Parliament.

[2] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the candidate can be admitted to examination.

The subjects of examination are as follows :—

DEPARTMENT I.

I. *Hebrew*—
(1.) Questions in Grammar.
(2.) Translation into Hebrew Prose.
(3.) Isaiah, Chaps. i.-xxiii.
(4.) Psalms, Book v. (Pss. cvii.-cxxviii.).
(5.) Hosea.
(6.) Jewish History, from B.C. 931-598.

Critical knowledge of the text of the books prescribed is required.

II. *Apologetic Theology*—
(1.) Modern Agnosticism.
(2.) The Resurrection of Christ, and the Theories regarding it.
(3.) St Paul and his writings in relation to Christian Apologetics.

DEPARTMENT II.

I. *Ecclesiastical History*—
(1.) The Main Facts in the Development of the Constitution, Doctrine, and Worship of the Church from 100 to 451 A.D. (2.) The History of the Church in Scotland during the 16th Century.

II. *Systematic Theology*—
(1.) The History of Theology in Scotland.
(2.) Subjective Soteriology.
(3.) The Bible Doctrines of Creation, Providence, and Man.

III. *Biblical Criticism and Biblical Antiquities*—
Manuscripts, Versions, and the more important Disputed Passages of the New Testament. (As in Scrivener's "Introduction.")
The History of Old Testament Introduction, and Professor Robertson's "Early Religion of Israel."
Apocryphal Books connected with the Old and New Testaments.
The Pastoral Epistles.

Examination Papers.

DEPARTMENT I.

I. HEBREW.

Tuesday, October 24, 1893—10 *to* 1 *o'clock.*

I. Translate into Hebrew :—

At the end of some years a new king arose, but he did more to lead the people astray than all who had been before him. He laid hold of and killed all the servants of Yahweh, so as not to allow of any one conspiring against him. And as the king was sleeping in his garden, a man approached him and awaking him spoke to him as follows :—Listen and know what shall become of thee, for I am a prophet of Yahweh. Thus saith Yahweh, Because thou hast not conciliated me, but hast so corrupted the people that there is not a righteous man among them, I will lay waste this land, and will remove thee from being king. But the king mocked the man, and answered, There is no doubt but thou hast lied. Depart from me, for what have I to do with thee?

II. (*a*) Point and translate :—

1 ויאמר דוד אל שאול רעה היה עבדך לאביו בצאן ובא הארי ואת הדוב
2 ונשא שה מהעדר : ויצאתי אחריו והכתיו והצלתי מפיו ויקם עלי והחזקתי
3 בזקנו והכתיו והמיתיו : גם את הארי גם הדוב הכה עבדך והיה הפלשתי
4 הערל הזה כאחד מהם כי חרף מערכת אלהים חיים : ויאמר
דוד יהוה אשר הצלני מיד הארי ומיד הדב הוא יצילני מיד הפלשתי
הזה ויאמר שאול אל דוד לך ויהוה יהיה עמך :

(*b*) Point out and remark on any peculiarity in the syntax of this passage. Remark also on את־הדוב.

III. (*a*) Translate :—

1 אַל־תַּנִּידוּ בְנַת אַל־תְּבַשְּׂרוּ בְּחוּצוֹת אַשְׁקְלוֹן פֶּן־תִּשְׂמַחְנָה בְּנוֹת פְּלִשְׁתִּים
2 פֶּן־תַּעֲלֹזְנָה בְּנוֹת הָעֲרֵלִים : הָרֵי בַגִּלְבֹּעַ אַל־טַל וְאַל־מָטָר עֲלֵיכֶם וּשְׂדֵי
3 תְרוּמוֹת כִּי שָׁם נִגְעַל מָגֵן גִּבּוֹרִים מָגֵן שָׁאוּל בְּלִי מָשִׁיחַ בַּשָּׁמֶן : מִדַּם
חֲלָלִים מֵחֵלֶב גִּבּוֹרִים קֶשֶׁת יְהוֹנָתָן לֹא נָשׁוֹג אָחוֹר וְחֶרֶב שָׁאוּל לֹא תָשׁוּב
4 רֵיקָם : שָׁאוּל וְיהוֹנָתָן הַנֶּאֱהָבִים וְהַנְּעִימִם בְּחַיֵּיהֶם וּבְמוֹתָם לֹא נִפְרָדוּ
5 מִנְּשָׁרִים קַלּוּ מֵאֲרָיוֹת גָּבֵרוּ : בְּנוֹת יִשְׂרָאֵל אֶל־שָׁאוּל בְּכֶינָה הַמַּלְבַּשְׁכֶם
6 שָׁנִי עִם־עֲדָנִים הַמַּעֲלֶה עֲדִי זָהָב עַל לְבוּשְׁכֶן : אֵיךְ נָפְלוּ גִבּוֹרִים בְּתוֹךְ
7 הַמִּלְחָמָה יְהוֹנָתָן עַל־בָּמוֹתֶיךָ חָלָל : צַר־לִי עָלֶיךָ אָחִי יְהוֹנָתָן נָעַמְתָּ לִי
8 מְאֹד נִפְלְאַתָה אַהֲבָתְךָ לִי מֵאַהֲבַת נָשִׁים : אֵיךְ נָפְלוּ גִבֹּרִים וַיֹּאבְדוּ כְּלֵי
מִלְחָמָה :

(*b*) Remark on הרי בגלבע. What objection is there to the reading ושדי תרומות? Mention the principal emendations of this reading.

(*c*) Why cannot הנאהבים, etc. (v. 4) be the predicate of the sentence? Give the chief competing views as to the structure and extent of this sentence.

(*d*) How do you account for the presence of both the article and the pronominal suffix in המלבשכם? Point out any difficulty in verse 5 and explain its nature.

(*e*) Write notes, grammatical, lexical or critical, on
נפלאתה, חיים, נשוג, משיח, בלי, נגעל.

IV. (*a*) Translate :—

1, 2 קא לְדָוִד מִזְמוֹר חַסְדִּי־וּמִשְׁפָּט אָשִׁירָה לְךָ יְהוָה אֲזַמֵּרָה : אַשְׂכִּילָה
3 בְּדֶרֶךְ תָּמִים מָתַי תָּבוֹא אֵלָי אֶתְהַלֵּךְ בְּתָם־לְבָבִי בְּקֶרֶב בֵּיתִי : לֹא־אָשִׁית

4 לְנֶגֶד עֵינַי דְּבַר־בִּלְיָעַל עֲשֹׂה־סֻטִּים שָׂנֵאתִי לֹא יִדְבַּק בִּי׃ לֵבָב עִקֵּשׁ יָסוּר
5 מִמֶּנִּי רַע לֹא אֵדָע׃ מְלָשְׁנִי בַסֵּתֶר ׀ רֵעֵהוּ אוֹתוֹ אַצְמִית גְּבַהּ־עֵינַיִם וּרְחַב
6 לֵבָב אֹתוֹ לֹא אוּכָל׃ עֵינַי ׀ בְּנֶאֱמְנֵי־אֶרֶץ לָשֶׁבֶת עִמָּדִי הֹלֵךְ בְּדֶרֶךְ תָּמִים
7 הוּא יְשָׁרְתֵנִי׃ לֹא־יֵשֵׁב ׀ בְּקֶרֶב בֵּיתִי עֹשֵׂה רְמִיָּה דֹּבֵר שְׁקָרִים לֹא־יִכּוֹן
8 לְנֶגֶד עֵינָי׃ לַבְּקָרִים אַצְמִית כָּל־רִשְׁעֵי־אָרֶץ לְהַכְרִית מֵעִיר־יְהוָה כָּל־פֹּעֲלֵי
אָוֶן׃

(*b*) Translate verses 1 and 2 according to another division than the Massoretic. Remark on the meaning of אשבילה, and explain its functions in this grouping of the words.

(*c*) Mention various ways of dealing with the clause "מתי וג׳."

(*d*) Parse עֲשֹׂה. What is peculiar here? How comes LXX. to render it *ποιοῦντας*? Explain the matter of discussion with regard to סטים.

(*e*) Point מלישני (Kethibh) and מלשני (Keri) and parse both, noting any difference of opinion among grammarians.

(*f*) Parse גבה and explain the pointing. Complete the phrase אתו לא אוכל, and give the reading corresponding to the LXX. *τουτῳ οὐ συνησθίον*.

V. (*a*) Translate:—

1, 2 כֹּה אָמַר יְהוָה אֱלֹהֵי רְעֵה אֶת־צֹאן הַהֲרֵגָה׃ אֲשֶׁר קֹנֵיהֶן יַהַרְגֵן וְלֹא
3 יֶאְשָׁמוּ וּמֹכְרֵיהֶן יֹאמַר בָּרוּךְ יְהוָה וַאֶעְשָׁר וְרֹעֵיהֶם לֹא יַחְמוֹל עֲלֵיהֶן׃ כִּי
לֹא אֶחְמוֹל עוֹד עַל־יֹשְׁבֵי הָאָרֶץ נְאֻם־יְהוָה וְהִנֵּה אָנֹכִי מַמְצִיא אֶת־הָאָדָם
4 אִישׁ בְּיַד־רֵעֵהוּ וּבְיַד מַלְכּוֹ וְכִתְתוּ אֶת־הָאָרֶץ וְלֹא אַצִּיל מִיָּדָם׃ וָאִרְעֶה
אֶת־צֹאן הַהֲרֵגָה לָכֵן עֲנִיֵּי הַצֹּאן וָאֶקַּח־לִי שְׁנֵי מַקְלוֹת לְאֶחָד קָרָאתִי נֹעַם
5 וּלְאֶחָד קָרָאתִי חֹבְלִים וָאֶרְעֶה אֶת־הַצֹּאן׃ וָאַכְחֵד אֶת־שְׁלֹשֶׁת הָרֹעִים בְּיֶרַח

6 אֶחָד וּמִקְצַר נַפְשִׁי בָּהֶם וְגַם־נַפְשָׁם בָּחֲלָה בִי׃ וְאָמַר לֹא אֶרְעֶה אֶתְכֶם
הַמֵּתָה תָמוּת וְהַנִּבְחֶדֶת תִּפְקֹד וְהַנִּשְׁאָרוֹת תֹּאכַלְנָה אִשָּׁה אֶת־בְּשַׂר
7 רֵעוּתָהּ׃ וָאֶקַּח אֶת־מַקְלִי אֶת־נֹעַם וָאְגַדֵּעַ אֹתוֹ לְהָפֵיר אֶת־בְּרִיתִי אֲשֶׁר
8 כָּרַתִּי אֶת־כָּל־הָעַמִּים׃ וַתֻּפַר בַּיּוֹם הַהוּא וַיִּדְעוּ כֵן עֲנִיֵּי הַצֹּאן הַשֹּׁמְרִים
9 אֹתִי כִּי דְבַר־יְהוָה הוּא׃ וָאֹמַר אֲלֵיהֶם אִם־טוֹב בְּעֵינֵיכֶם הָבוּ שְׂכָרִי
10 וְאִם־לֹא ׀ חֲדָלוּ וַיִּשְׁקְלוּ אֶת־שְׂכָרִי שְׁלֹשִׁים כָּסֶף׃ וַיֹּאמֶר יְהוָה אֵלַי
הַשְׁלִיכֵהוּ אֶל־הַיּוֹצֵר אֶדֶר הַיְקָר אֲשֶׁר יָקַרְתִּי מֵעֲלֵיהֶם וָאֶקַּח שְׁלֹשִׁים
11 הַכֶּסֶף וָאַשְׁלִיךְ אֹתוֹ בֵּית יְהוָה אֶל־הַיּוֹצֵר׃ וָאְגַדֵּעַ אֶת־מַקְלִי הַשֵּׁנִי אֶת
הַחֹבְלִים לְהָפֵר אֶת־הָאַחֲוָה בֵּין יְהוּדָה וּבֵין יִשְׂרָאֵל׃

(*b*) Point out in v. 2 any nouns whose number cannot be decided from their form. Where does the present text seem corrupt? What emendations would you suggest?

(*c*) Where in v. 3 has the correctness of the Massoretic text been challenged? On what ground? What is the emendation proposed?

(*d*) Give a reading of the consonantal text of 4*a* different from that of the Massoretes. Translate and explain the translation. Point out where a similar change is desirable in this passage.

(*e*) Remark on אחד 4*b*, חבלים, בחלה, הפיר, and the feminines in v. 6.

(*f*) What defence has been offered for the traditional reading היוצר? What objection is there to the reading? Point it otherwise, give the meaning, and explain the form.

VI. (*a*) Translate:—

1, 2 וְעַתָּה אֲלֵיכֶם הַמִּצְוָה הַזֹּאת הַכֹּהֲנִים׃ אִם־לֹא תִשְׁמְעוּ וְאִם־לֹא תָשִׂימוּ
עַל־לֵב לָתֵת כָּבוֹד לִשְׁמִי אָמַר יְהוָה צְבָאוֹת וְשִׁלַּחְתִּי בָכֶם אֶת־הַמְּאֵרָה
3 וְאָרוֹתִי אֶת־בִּרְכוֹתֵיכֶם וְגַם אֲרוֹתִיהָ כִּי אֵינְכֶם שָׂמִים עַל־לֵב׃ הִנְנִי גֹעֵר

לָכֶם אֶת־הַזֶּרַע וְזֵרִיתִי פֶּרֶשׁ עַל־פְּנֵיכֶם פֶּרֶשׁ חַגֵּיכֶם וְנָשָׂא אֶתְכֶם אֵלָיו׃
4 וְיָדַעְתֶּם כִּי שִׁלַּחְתִּי אֲלֵיכֶם אֶת הַמִּצְוָה הַזֹּאת לִהְיוֹת בְּרִיתִי אֶת־לֵוִי אָמַר
5 יְהוָה צְבָאוֹת׃ בְּרִיתִי ׀ הָיְתָה אִתּוֹ הַחַיִּים וְהַשָּׁלוֹם וָאֶתֵּנֵם־לוֹ מוֹרָא וַיִּירָאֵנִי
6 וּמִפְּנֵי שְׁמִי נִחַת הוּא׃ בְּנָדָה יְהוּדָה וְתוֹעֵבָה נֶעֶשְׂתָה בְיִשְׂרָאֵל וּבִירוּשָׁלִָם
7 כִּי ׀ חִלֵּל יְהוּדָה קֹדֶשׁ יְהוָה אֲשֶׁר אָהֵב וּבָעַל בַּת־אֵל נֵכָר׃ יַכְרֵת יְהוָה לָאִישׁ
8 אֲשֶׁר יַעֲשֶׂנָּה עֵר וְעֹנֶה מֵאָהֳלֵי יַעֲקֹב וּמַגִּישׁ מִנְחָה לַיהוָה צְבָאוֹת׃ וְזֹאת
שֵׁנִית תַּעֲשׂוּ כַּסּוֹת דִּמְעָה אֶת־מִזְבַּח יְהוָה בְּכִי וַאֲנָקָה מֵאֵין עוֹד פְּנוֹת
9 אֶל־הַמִּנְחָה וְלָקַחַת רָצוֹן מִיֶּדְכֶם׃ וַאֲמַרְתֶּם עַל־מָה עַל כִּי־יְהוָה הֵעִיד בֵּינְךָ
וּבֵין ׀ אֵשֶׁת נְעוּרֶיךָ אֲשֶׁר אַתָּה בָּגַדְתָּה בָּהּ וְהִיא חֲבֶרְתְּךָ וְאֵשֶׁת בְּרִיתֶךָ׃
10 וְלֹא־אֶחָד עָשָׂה וּשְׁאָר רוּחַ לוֹ וּמָה הָאֶחָד מְבַקֵּשׁ זֶרַע אֱלֹהִים וְנִשְׁמַרְתֶּם
11 בְּרוּחֲכֶם וּבְאֵשֶׁת נְעוּרֶיךָ אַל־יִבְגֹּד׃ כִּי־שָׂנֵא שַׁלַּח אָמַר יְהוָה אֱלֹהֵי
יִשְׂרָאֵל וְכִסֶּה חָמָס עַל־לְבוּשׁוֹ אָמַר יְהוָה צְבָאוֹת וְנִשְׁמַרְתֶּם בְּרוּחֲכֶם וְלֹא
תִבְגֹּדוּ׃

(*b*) Remark on the absence of a suffix in לב and on the suffix in ארותיה. Which is the stronger of the two, אינכם שמים על לב or אין בכם וג׳?

(*c*) What changes in the text of v. 3 yield these translations?—(1) Lo, I banish for you the sower; (2) Lo, I cut you off the arm.

(*d*) Mention some of the meanings suggested for the last clause of v. 3.

(*e*) In what ways is it possible to construe מורא? Remark on the pointing and root of נחת.

(*f*) Why is בגדה fem. and חלל masc.? Construe and translate differently the clause (v. 6) אשר אהב.

(*g*) Parse יכרת. What thought is supposed to be expressed by ער וענה? What other reading has been suggested? To

what reading does LXX. ἐκ προσαγόντων θυσίαν = מניש point?

(*h*) Mention some of the translations of v. 10*a*.

(*i*) Explain the construction וְכִפָּה. What would you expect in its stead? What are the possible subjects of שנא?

HISTORY.

I. Sketch the life of Ahab with special reference to his foreign policy.

II. Estimate the value of the testimony of the prophets Hosea and Amos to the history of Israel. State and examine the views of Wellhausen, Stade, and Kuenen upon this point.

Wednesday, 4th April 1894.—10 *to* 1 *o'clock.*

I. Translate into Hebrew:—

In these bygone days there were many wise men among the poor of the land, though none knew it. When, therefore, it was reported that the king had banished all the false prophets from his presence, one of them took the road to the king's palace, thinking that he would now listen to the command which, through his servant, Yahweh was about to give. To the king's servants he came, and said to them, Take me to the king that I may speak with him, for Yahweh hath sent me to him to teach him wisdom. They told the king, and he answered, Did not I say I wish there were some one to tell me whether Yahweh has forsaken this people for ever, or whether he will have mercy on it and bless it again? Bring the man to me quickly, that he may be my minister and attendant henceforth.

II. (*a*) Point:—

1 ואיש ישראל ראו כי צר לו כי ניש העם ויתחבאו העם במערות
2 ובחוחים ובסלעים ובצרחים ובברות: ועברים עברו את הירדן ארץ
3 גד וגלעד ושאול עודנו בגלגל וכל העם חרדו אחריו: וייחל ז שבעת
ימים למועד אשר שמואל ולא בא שמואל הגלגל ויפץ העם מעליו:
4 ויאמר שמואל אל שאול נסכלת לא שמרת את מצות יהוה אלהיך
5 אשר צוך כי עתה הכין יהוה את ממלכתך אל ישראל עד עולם: ועתה

ממלכתך לא תקום בקש יהוה לו איש כלבבו ויצוהו יהוה לנגיד על עמו
6 כי לא שמרת את אשר צוך יהוה: ויקם שמואל ויעל מן הגלגל גבעת
בנימן ויפקד שאול את העם הנמצאים עמו כשש מאות איש:

(*b*) Translate.

(*c*) Why is it doubtful whether כי נגש העם is part of the original text? What is the meaning of the following restoration of the text:—צר לו מֵעֲבְרָיו? Show how it is suggested by the LXX. *μὴ προσάγειν αὐτόν.*

(*d*) What is the sing. of חוחים? Can you suggest a more likely reading? Write a note on the meaning of צריחים.

(*e*) What reason is there for dissatisfaction with the text of the first clause of verse 2? Write in Hebrew, "And they crossed the fords of Jordan," and show how this is a possible or probable restoration of the text.

(*f*) Give the possible pointings of וייחל. Write and point the K'ri. Write a note on אשר שמואל.

(*g*) After מן־הגלגל LXX. inserts *εἰς ὁδὸν αὐτοῦ, καὶ τὸ κατάλιμμα τοῦ λαοῦ ἀνέβη ὀπίσω Σαουλ εἰς ἀπάντησιν ὀπίσω τοῦ λαοῦ τοῦ πολεμίστου. αὐτῶν παραγενομένων ἐκ Γαλγαλων εἰς Γαβαα κ.τ.λ.* How came this clause to fall out? Restore the Hebrew text suggested by the Greek.

III. (*a*) Translate:—

1, 2 שִׁירוּ לַיהוָה שִׁיר חָדָשׁ שִׁירוּ לַיהוָה כָּל־הָאָרֶץ: שִׁירוּ לַיהוָה
3 בָּרְכוּ שְׁמוֹ בַּשְּׂרוּ מִיּוֹם־לְיוֹם יְשׁוּעָתוֹ: סַפְּרוּ בַגּוֹיִם כְּבוֹדוֹ בְּכָל־הָעַמִּים
4, 5 נִפְלְאוֹתָיו: כִּי־גָדוֹל יְהוָה וּמְהֻלָּל מְאֹד נוֹרָא הוּא עַל־כָּל־אֱלֹהִים: כִּי
6 כָּל־אֱלֹהֵי הָעַמִּים אֱלִילִים וַיהוָה שָׁמַיִם עָשָׂה: הוֹד־וְהָדָר לְפָנָיו עֹז
7 וְתִפְאֶרֶת בְּמִקְדָּשׁוֹ: הָבוּ לַיהוָה מִשְׁפְּחוֹת עַמִּים הָבוּ לַיהוָה כָּבוֹד וָעֹז:
8, 9 הָבוּ לַיהוָה כְּבוֹד שְׁמוֹ שְׂאוּ־מִנְחָה וּבֹאוּ לְחַצְרוֹתָיו: הִשְׁתַּחֲווּ לַיהוָה
10 בְּהַדְרַת־קֹדֶשׁ חִילוּ מִפָּנָיו כָּל־הָאָרֶץ: אִמְרוּ בַגּוֹיִם ו יְהוָה מָלָךְ

11 אַךְ־תִּכּוֹן תֵּבֵל בַּל־תִּמּוֹט יָדִין עַמִּים בְּמֵישָׁרִים׃ יִשְׂמְחוּ הַשָּׁמַיִם וְתָגֵל
12 הָאָרֶץ יִרְעַם הַיָּם וּמְלֹאוֹ׃ יַעֲלֹז שָׂדַי וְכָל־אֲשֶׁר־בּוֹ אָז יְרַנְּנוּ כָּל־עֲצֵי־יָעַר׃
13 לִפְנֵי יְהוָה ׀ כִּי בָא כִּי בָא לִשְׁפֹּט הָאָרֶץ יִשְׁפֹּט־תֵּבֵל בְּצֶדֶק וְעַמִּים
בֶּאֱמוּנָתוֹ׃

(*b*) Translate the LXX. title ὅτε ὁ οἶκος ᾠκοδομεῖται μετὰ τὴν αἰχμαλωσίαν· ᾠδὴ τῷ Δαυείδ. Say how this title probably originated.

(*c*) Has this psalm any literary relations or affinities in the O.T., and if so, what are they in detail?

(*d*) Where do we find another Hebrew text of the psalm? Which is probably the earlier, and why?

(*e*) Note the chief points in which the two texts differ.

(*f*) What explanations would you suggest for the following LXX. renderings:—ἐν αὐλῇ ἁγίᾳ αὐτοῦ = בהדרת־קדיש and κατώρθωσεν = תכן?

(*g*) Write sing. abs. and const. of משפחות and חצרות. Parse הישתחוו and explain the origin of the form נורא.

(*h*) What is usually regarded as the etymological meaning of אלילים? Which of the following—δαιμονια, sculptilia, ἐπιπλαστοι, ἀνυπαρκτοι—express it? Give more accurate Hebrew equivalents of the others.

(*i*) Parse הבו. Write out (marking the tone) the forms of this verb in use. Shew also what would be the normal pointing of each form.

(*j*) How do you account for the plural in מישרים? How are *collectives* expressed in Hebrew? Point out an instance of one in the above passage.

(*k*) What ground is there for supposing that the original text of verse 10 has been added to? Point out the supposed addition.

IV. (*a*) Translate:—

1 שַׁאֲלוּ מֵיְהוָה מָטָר בְּעֵת מַלְקוֹשׁ יְהוָה עֹשֶׂה חֲזִיזִים וּמְטַר־גֶּשֶׁם יִתֶּן
2 לָהֶם לְאִישׁ עֵשֶׂב בַּשָּׂדֶה׃ כִּי הַתְּרָפִים דִּבְּרוּ־אָוֶן וְהַקּוֹסְמִים חָזוּ שֶׁקֶר

3 וְחַלְמוּת הַשָּׁוְא יְדַבְּרוּ הֶבֶל יְנַחֵמוּן עַל־כֵּן נָסְעוּ כְמוֹ־צֹאן יֵעָנּוּ כִּי־אֵין
4 רֹעֶה׃

5 עַל־הָרֹעִים חָרָה אַפִּי וְעַל־הַעַתּוּדִים אֶפְקוֹד כִּי־פָקַד יְהוָה צְבָאוֹת אֶת־
עֲדָרוֹ אֶת־בֵּית יְהוּדָה וְיָשָׂם אוֹתָם כְּסוּס הוֹדוֹ בַּמִּלְחָמָה׃ מִמֶּנּוּ פִּנָּה מִמֶּנּוּ
6 יֶתֶד מִמֶּנּוּ קֶשֶׁת מִלְחָמָה מִמֶּנּוּ יֵצֵא כָּל־נוֹגֵשׂ יַחְדָּו׃ וְהָיוּ כְּגִבֹּרִים בּוֹסִים
7 בְּטִיט חוּצוֹת בַּמִּלְחָמָה וְנִלְחֲמוּ כִּי יְהוָה עִמָּם וְהֹבִישׁוּ רֹכְבֵי סוּסִים׃
וְגִבַּרְתִּי ו אֶת־בֵּית יְהוּדָה וְאֶת־בֵּית יוֹסֵף אוֹשִׁיעַ וְהוֹשַׁבֹתִים כִּי רִחַמְתִּים
8, 9 וְהָיוּ כַּאֲשֶׁר לֹא־זְנַחְתִּים כִּי אֲנִי יְהוָה אֱלֹהֵיהֶם וְאֶעֱנֵם׃ וְהָיוּ כְּגִבּוֹר
10 אֶפְרַיִם וְשָׂמַח לִבָּם כְּמוֹ־יָיִן וּבְנֵיהֶם יִרְאוּ וְשָׂמְחוּ יָגֵל לִבָּם בַּיהוָה׃
11 אֶשְׁרְקָה לָהֶם וַאֲקַבְּצֵם כִּי פְדִיתִים וְרָבוּ כְּמוֹ רָבוּ׃ וְאֶזְרָעֵם בָּעַמִּים
וּבַמֶּרְחַקִּים יִזְכְּרוּנִי וְחָיוּ אֶת־בְּנֵיהֶם וְשָׁבוּ׃ וְהֹשַׁבְתִּים מֵאֶרֶץ מִצְרַיִם
12 וּמֵאַשּׁוּר אֲקַבְּצֵם וְאֶל־אֶרֶץ גִּלְעָד וּלְבָנוֹן אֲבִיאֵם וְלֹא יִמָּצֵא לָהֶם׃ וְעָבַר
בַּיָּם צָרָה וְהִכָּה בַיָּם גַּלִּים וְהֹבִישׁוּ כֹּל מְצוּלוֹת יְאֹר וְהוּרַד גְּאוֹן אַשּׁוּר
וְשֵׁבֶט מִצְרַיִם יָסוּר׃ וְגִבַּרְתִּים בַּיהוָה וּבִשְׁמוֹ יִתְהַלָּכוּ נְאֻם יְהוָה׃

(*b*) Write the emended text of verse 1 :—"Ask rain from Jehovah ; at the right time he provides the late and the early rain, lightnings &c. he gives them." What is the documentary authority for these changes?

(*c*) Mention the different possible divisions and renderings of the Massoretic text of verse 1.

(*d*) Write an etymological and grammatical note on התרפים and explain the significance of the asyndeton יענו, verse 2.

(*e*) Give the various ways of grouping and translating the words of verse 2*a*.

(*f*) Is there any significance in the variation of expression in verse 3 פקד את, פקד על? Parse מכמנו, and say to what the suffix may refer.

(*g*) Parse and remark on the form and meaning of בוסים and הובישו, verse 5.

(*h*) Remark on הושבותים, verse 6. What do you take to be the true reading? and why? Complete the construction implied in כמו יין, verse 7.

(*i*) Mention suggested emendations of ואזרעם and וחיו, verse 9, and their grounds. Translate the Massoretic text *or* the emended text of the verse—the one you have not already translated.

(*j*) Mention the principal suggestions as to the text and translations of the first six words of verse 11.

(*k*) On what grounds does Wellhausen correct verse 12 into—"And their strength is in Jehovah, and in his name they will make their boast"? Write the changes on the Hebrew.

V. (*a*) Translate :—

1 הִנְנִי שֹׁלֵחַ מַלְאָכִי וּפִנָּה־דֶרֶךְ לְפָנָי וּפִתְאֹם יָבוֹא אֶל־הֵיכָלוֹ הָאָדוֹן ׀
אֲשֶׁר־אַתֶּם מְבַקְשִׁים וּמַלְאַךְ הַבְּרִית אֲשֶׁר אַתֶּם חֲפֵצִים הִנֵּה־בָא אָמַר
2 יְהוָה צְבָאוֹת׃ וּמִי מְכַלְכֵּל אֶת־יוֹם בּוֹאוֹ וּמִי הָעֹמֵד בְּהֵרָאוֹתוֹ כִּי־הוּא
3 כְּאֵשׁ מְצָרֵף וּכְבֹרִית מְכַבְּסִים׃ וְיָשַׁב מְצָרֵף וּמְטַהֵר כֶּסֶף וְטִהַר אֶת־
בְּנֵי־לֵוִי וְזִקַּק אֹתָם כַּזָּהָב וְכַכֶּסֶף וְהָיוּ לַיהוָה מַגִּישֵׁי מִנְחָה בִּצְדָקָה׃
4 וְעָרְבָה לַיהוָה מִנְחַת יְהוּדָה וִירוּשָׁלָ͏ִם כִּימֵי עוֹלָם וּכְשָׁנִים קַדְמֹנִיּוֹת׃
5 וְקָרַבְתִּי אֲלֵיכֶם לַמִּשְׁפָּט וְהָיִיתִי ׀ עֵד מְמַהֵר בַּמְכַשְּׁפִים וּבַמְנָאֲפִים
וּבַנִּשְׁבָּעִים לַשָּׁקֶר וּבְעֹשְׁקֵי שְׂכַר־שָׂכִיר אַלְמָנָה וְיָתוֹם וּמַטֵּי־גֵר וְלֹא
6 יְרֵאוּנִי אָמַר יְהוָה צְבָאוֹת׃ כִּי אֲנִי יְהוָה לֹא שָׁנִיתִי וְאַתֶּם בְּנֵי־יַעֲקֹב
7 לֹא כְלִיתֶם׃ לְמִימֵי אֲבֹתֵיכֶם סַרְתֶּם מֻחֻקַּי וְלֹא שְׁמַרְתֶּם שׁוּבוּ אֵלַי
8 וְאָשׁוּבָה אֲלֵיכֶם אָמַר יְהוָה צְבָאוֹת וַאֲמַרְתֶּם בַּמֶּה נָשׁוּב׃ הֲיִקְבַּע אָדָם
אֱלֹהִים כִּי אַתֶּם קֹבְעִים אֹתִי וַאֲמַרְתֶּם בַּמֶּה קְבַעֲנָךְ הַמַּעֲשֵׂר וְהַתְּרוּמָה׃

9, 10 בַּמֹּאזְנַיִם אַתֶּם נֶאֱרָים וְאֹתִי אַתֶּם קִבְעִים הַגּוֹי כֻּלּוֹ׃ הָבִיאוּ אֶת־כָּל־
הַמַּעֲשֵׂר אֶל־בֵּית הָאוֹצָר וִיהִי טֶרֶף בְּבֵיתִי וּבְחָנוּנִי נָא בָּזֹאת אָמַר יְהוָה
צְבָאוֹת אִם־לֹא אֶפְתַּח לָכֶם אֶת אֲרֻבּוֹת הַשָּׁמַיִם וְהָרִיקֹתִי לָכֶם בְּרָכָה
11 עַד־בְּלִי־דָי׃ וְגָעַרְתִּי לָכֶם בָּאֹכֵל וְלֹא־יַשְׁחֵת לָכֶם אֶת־פְּרִי הָאֲדָמָה
12 וְלֹא־תְשַׁכֵּל לָכֶם הַגֶּפֶן בַּשָּׂדֶה אָמַר יְהוָה צְבָאוֹת׃ וְאִשְּׁרוּ אֶתְכֶם
כָּל־הַגּוֹיִם כִּי־תִהְיוּ אַתֶּם אֶרֶץ חֵפֶץ אָמַר יְהוָה צְבָאוֹת׃

(*b*) Explain the form of פנים and the pointing of טהר, במארה, and נארים.

(*c*) Give the etymology of היכל, and explain or complete the phrases מטי־נר and עד בלי די.

(*d*) Can you suggest any modification of the text מלאך הברית and שמרתם that would make it easier?

(*e*) Mention different views as to the subject of יבוא and בא, verse 1, and point out any contravention of grammatical rule in the construction מנחת יהודה וירושלים.

(*f*) How is ולא יראוני related to the sentence in which it occurs? Explain the construction.

(*g*) Remark on לא כליתם and העמד . . . מכלכל.

(*h*) Why do we have כלו and not כלכם?

VI. (*a*) What was the later prophetic estimate of the disruption of the kingdom? Compare it with the account of modern critical historians. Which do you consider most in accord with the facts of the case? and why?

(*b*) Give some account of the prophetism of the period. Shew the place occupied by it in the historical development of prophetism. Compare it with similar phenomena in other religions.

II.—APOLOGETIC THEOLOGY.

Tuesday, 24th October 1893.—2 *to* 5 *o'clock.*

Pantheism.

1. Is it possible in a properly pantheistic system to attribute to God self-consciousness and intelligence? Discuss the question.

2. Describe any logical, psychological or ethical doctrines which seem to you to tend to Pantheism, and explain how they do so.

3. Distinguish and compare the Pantheistic System of Spinoza and Hegel. Is Spinoza's system acosmic? Is Hegel's compatible with acceptance of a Divine primal self-conscious Personality?

4. State what Theistic Proofs you recognise as valid, and indicate how you would maintain them against a Pantheist.

The Character and Teaching of Christ.

1. How are the claims of Christianity affected by the question as to the Sinlessness of Christ?

2. Can we prove the perfection of Christ's teaching? Can we infer from it the Divine source and nature of His teaching? Discuss both questions.

3. Discuss the apologetic bearing and value of the Messianic consciousness and claims of Jesus.

4. "Without belief in the Divine dignity of Christ, Christianity would never have triumphed over heathenism and the world." Discuss this view.

The Christian Evidences as Connected and Cumulative.

1. What do you regard as the best order of presenting the Christian evidences? State your reasons.

2. Give a general view of what you regard as not direct, but simply corroborative proofs of the truth of Christianity.

3. Shew how "the apparently conflicting evidences may be balanced against each other, and the apparently concurring evidences estimated by their united efficacy" in the case of the prophecy of the Suffering Servant of Jehovah.

4. The "defenders of Christianity are not altogether free from the charge of insisting exclusively or pre-eminently upon some one alone of its evidences." Illustrate this statement by historical references to the Apologetics of the Eighteenth and of the Nineteenth Century.

Wednesday, 4th April 1894.—2 *to* 5 *o'clock.*

PANTHEISM.

1. What support does Pantheism find in the emotions? Illustrate by historical or literary references.

2. How has Pantheism sought to disprove divine personality, and how has it presented the doctrine of divine omnipotence?

3. Give some account of the Pantheism of the Stoics, and compare it with any related or cognate expositions of the Divine principle of the universe in the New Testament. How is the ethical monotheism of the Bible differentiated generally from the Greek Pantheism?

4. "So far as the philosophies of Fichte, Schelling, and Hegel were pantheistic in their nature, they presented only very inadequate and unworthy views of God." Review or illustrate this statement by more particular references to these philosophies.

THE CHARACTER AND TEACHING OF CHRIST.

1. Indicate in what respects, and to what extent, the Teaching of Christ affords evidence as to his character.

2. State the argument for the truth of Christianity derivable from the moral teaching of Christ.

3. Is the Character of Christ as delineated in the Synoptic Gospels explicable as a merely human development, or does it specially involve exceptional superhuman elements? Discuss these alternative views, and refer to leading expounders of them.

4. What is distinctively new in Christ's conception of the Kingdom of God, and what relation does it hold to his Teaching as a whole? Refer to the views of Ritschl and his School, and to any recent English discussions of the subject.

THE CHRISTIAN EVIDENCES AS CONNECTED AND CUMULATIVE.

1. State and examine Bishop Butler's views as to the distinction between, and relationship of, direct and corroborative evidences of Christianity.

2. What place would you assign to Analogy in the scheme of Christian evidences? How is it related to other proofs?

3. Can an organic connection be established among the various media, stages, and forms of the Christian Revelation? What place would you assign to the historical institutions of the Old Testament dispensation in that connection? Discuss the views of Hofmann and his School.

4. Show how the evidences for the Resurrection of Christ, viewed as connected and cumulative, may be logically estimated and applied in investigating it as an historical event.

DEPARTMENT II.

I.—CHURCH HISTORY.

Wednesday 25th October 1893.—10 *to* 1 *o'clock.*

1. What are the sources of our information as to the celebration of public worship in the first half of second century, and what do they tell us?

2. Tell what you know of the principles and extent of the persecution of Christians under the different Emperors from Trajan to Commodus (both included).

3. Give the names of the second century Apologists. How did they deal with (1) the State's procedure against Christianity; (2) heathen religion; (3) heathen philosophy; and (4) the truth of Christianity?

4. Describe generally the nature of the various attempts made in the course of the second century to transform or reform Christianity. Show in what ways and with what success they were met and repulsed by the Church.

5. What were the nature and grounds of the pre-eminence enjoyed by Rome in the second century?

6. Describe the rival Christologies of the third century. Tell what you know of the conflict and its result.

7. Who were some of the best known teachers of the Catechetical School of Alexandria? What was the distinctive feature in its speculative treatment of Christianity? Who wrote περὶ ἀρχῶν, and what in outline are the views there advocated?

8. Give some account of the literary side of the Arian Controversy.

9. What were the legislative and judicial functions exercised in the Church by the Emperors between 325-381? Illustrate from history.

10. Give some account of the judicial powers possessed by the Imperial Church in civil and criminal matters.

11. Give an account of the attempts made to impose Anglican ritual on the Church of Scotland.

12. What was the nature of the Covenants of 1638 and 1643 respectively? Sketch the history of the interval between the two, so as to show how that of 1643 was called for.

13. Write explanatory notes on "Resolutioners and Protesters," "Society People," "Oath of Assurance," "Barrier Act," "Ryehouse Plot."

14. What were the opinions of William of Orange on Church matters in general, and as affecting Scotland in particular?

Thursday, 5th April 1894.—10 *to* 1 *o'clock.*

1. Sketch the philosophical groundwork of the second century Apologists, say whence they derived it, and shew how they reconciled it with the Christian faith.

2. What, in detail, were the methods and means by which Gnosticism tried to propagate and legitimise itself within the Church?

3. What are the rival theories as to the nature and growth of the Episcopate in the Early Church?

4. What were the laws of Rome under which it was open to the State to take action against Christianity? Exemplify the operation of these laws from the history of the persecutions.

5. Mention and describe as nearly as possible in historical succession the moments in the unification and hierarchical organisation of the Church down to 381.

6. What were the principal popular charges against Christianity prior to 200? Mention and describe as fully as you can any more detailed or reasoned attacks on it prior to the same date.

7. Sketch the history of the State's procedure with regard to heathenism, 300-381.

8. Shew to what extent Christianity had spread towards the end of the fourth century.

9. Mention the principal reformers and defenders of heathenism down to 381. Describe as well as you can the work of each.

10. What is the Christian Year? To what extent was it recognised at the end of the third century? Give a full historical account of any important difference of opinion and practice in the Church in this connexion.

11. Give an account of the Two Covenants, and the Sanquhar Declaration.

12. Tell what you know about the Commissioners of the Church of Scotland to the Westminster Assembly, and of the action of the Church in reference to the Westminster Confession of Faith.

13. Give an account of the transactions of the Parliament of 1633, and shew its bearing on the ecclesiastical history of Scotland.

14. Give an historical account of the policy of James VI. with regard to the Church of Scotland.

II.—SYSTEMATIC THEOLOGY.

Wednesday, 25th October 1893.—2 *to* 5 *o'clock.*

History of Christian Dogmatics from the Reformation to the Close of the Eighteenth Century.

1. State generally how the Reformation directly affected the development of the doctrines of (1) Justification, (2) the Church, and (3) the Sacraments.

2. Indicate the distinctive features of the theology of Luther, Calvin, and Zwingli.

3. Give an account of the rise and development of the Federal System in the Reformed Church and its influence on Christian Dogmatics generally.

4. Give an account of the Trinitarian Controversy in the Church of England during the first half of the Eighteenth Century.

The Doctrine of Holy Scripture.

1. What Religions claim to have arisen from Divine Revelation, and to be in possession of divinely inspired Books.

2. State the chief propositions affirmed in the Protestant Creeds regarding the source, nature, and extent of the authority of the Bible.

3. State the reasons for and against Plenary Inspiration.

4. Examine the following thesis: "Spiritus Sanctus est autor Scripturæ principalis summus, ac proinde omnis legitima ac solida Scripturæ interpretatio vel ex immediata Sp. S. inspiratione vel ex ipsa Scriptura petenda est."

Doctrines of Predestination, Creation, and Providence.

1. Write critical, historical, and doctrinal notes on the following:—προορίζειν, ἐκλέγειν, and their cognates in the New Testament; (2) Decretum absolutum; Decretum horribile; (3) Supralapsarians and Infralapsarians; (4) Hypothetical Universalism distinguished from Arminianism; (5) Schleiermacher's view of Election compared with the views of Augustine and Calvin.

2. Examine the following objections to the Doctrine of Predestination: (1) that it makes God the Author of Sin; (2) that it is inconsistent with the consciousness of Free-will; (3) that it limits the universality of the Gospel.

3. Trace the Biblical theological doctrine of Creation in its general presentation and development in the Old Testament. How has this doctrine been affected by recent Biblical Criticism and Comparative Theology?

4. Remark on the distinction between the Providential efficiency of God and the operations of the Spirit, and their relations.

Thursday, 5th April 1894.—2 *to* 5 *o'clock.*

History of Christian Dogmatics from the Reformation to the Close of the Eighteenth Century.

1. Describe the chief phases through which dogmatic theology passed in Scotland during the period. Refer to the chief representative theologians.

2. Give some account of the doctrinal standpoints and principles of the group of theologians called "the Aberdeen doctors," of the School of Saumur, and of the Cocceian School.

3. Distinguish the History of Christian Dogmatics from the History of Christian Dogmas, and shew how the authoritative Dogmas of the Protestant Churches influenced the progress of their Dogmatics during this period. Refer to the chief Symbols.

4. "The final results of the Dogmatic History of the great movement of the Reformation, have remained far behind its promising beginnings." Review this statement referring to the leading Protestant dogmatic Theologians and dogmatic works belonging to the first half of the Sixteenth Century and the latter half of the Eighteenth Century. Account for the decay of the Dogmatic spirit and interest.

The Doctrine of Holy Scripture.

1. In what respects does the Roman Catholic doctrine of Holy Scripture differ from the doctrine taught in the first chapter of the Westminster Confession of Faith?

2. Criticise any conceptions as to the authority of the Bible which seem to you erroneous.

3. Review the present state of the question as to the Inerrancy of Scripture, and discuss the validity of the distinction between the Scripture *being* the Word of God and *containing* the Word of God.

4. State and review the ground upon which the Westminster Confession accepts the Word of God in Holy Scripture as an authoritative Revelation of Divine Truth. Explain what is meant by calling Scripture "the formal Principle" of the Reformed Theology.

Doctrines of Predestination, Creation and Providence.

1. Give a general and comparative view of the teaching of Christ and of Paul regarding Election and Predestination.

2. State the Augustinian doctrine of Predestination and compare it in its chief affirmations with that of Paul.

3. Review the following:—(1) Origen's theory of Creation; (2) the distinction between Immediate and Mediate Creation; (3) Kant's Criticism of the idea of a beginning of the World; (4) the thesis that a doctrine of Creation is not essential or necessary to Christian Theology.

4. State and examine the principal theories advanced regarding the relation of Divine Providence to the Human Will. In what way does the Christian Doctrine of Redemption solve the philosophical difficulty?

III.—BIBLICAL CRITICISM.

Thursday, 26th October 1893.—10 *to* 1 *o'clock.*

History of Old Testament Introduction.

1. What matters did the earliest "Introductions" deal with? On what subjects would you look for information in a modern "Introduction"? Since when has this conception of "Introduction" prevailed?

2. Distinguish "Special" and "General" Introduction. Describe in general terms the "Special" Introductions of Reuss and Bleek, so as to bring out the characteristic difference in their method of presentation.

3. Note the contributions to the literature and science of Old Testament Introduction made by Cappellus, Astruc, Ewald, Hupfeld, Graf, and Riehm. Mention also some Jewish contributors and their contributions.

4. Give as full an account as you can of the labours of Abraham Kuenen in the field of Old Testament Introduction.

5. Name the best known living writers on introductory subjects, and indicate their position on such a question as the Pentateuch.

History of the Canon and Text of the Old Testament.

6. Was the tripartite division of the Old Testament part of the original plan or an historical growth? Give reasons for your opinion.

7. Shew from evidence, internal and external, that the Canonicity of the "Prophets" was recognised by 200 B.C. Was the collection the same as that with which we are acquainted? Answer with special reference to the books of Ruth and Lamentations.

8. Give the names and a short summary of what you know about the origin and contents of the Old Testament Apocrypha. Discuss whether they were ever or anywhere regarded by Jews as canonical.

9. Sketch the history of the LXX. version of the Old Testament, and estimate its value for the textual criticism of the Old Testament. Mention any special circumstance that at present detracts from its general value.

Pauline Epistles.

10. Group the Pauline Epistles according to their probable dates in St Paul's life.

11. Whence do we derive our knowledge of Marcion's Apostolicon? Give some account of it, noting especially its most important features.

12. (*a*) Give a full outline of the Epistle to the Galatians; (*b*) Compare the Epistle to the Galatians with the Epistle to the Romans in respect of the doctrinal argument.

13. What did Baur say with regard to Hegesippus in connection with the question as to the authenticity of the Pastoral Epistles? Examine his position on this point.

14. What words, phrases, and forms of expression are peculiar to the Pastoral Epistles?

Textual Criticism, etc., of New Testament.

15. εἶπεν δέ τις αὐτῷ· ἰδοὺ ἡ μήτηρ σου καὶ οἱ ἀδελφοί σου ἔξω ἑστήκασιν ζητοῦντές σοι λαλῆσαι ℵ[c] C D E F G K M S U V X Z Δ Π Σ Φ, etc.; Latt (Vet *codd. pler*-Vulg) Syrr (Pesh. Harcl) Memph. Arm. Aeth.; Orig-lat. Chrys.; *La RV Tᵗ¹ Tr Wᵉ² WHᵃ² om* ℵ B L Γ *minusc. pauc.*; ff, k, Syr Cur; *Tᵗ² Wᵉ¹ WH¹*. So Matt. xii. 47 (Sanday).

Describe the MSS. denoted by Greek letters, and the Latin and Egyptian Versions mentioned above.

16. Marshal the evidence, and give your conclusion on one of the more important disputed passages of the New Testament.

Friday, 6th April 1894.—10 *to* 1 *o'clock.*

History of Old Testament Introduction.

1. Show how Schleiermacher's description of Old Testament Introduction as a "science which has no boundaries, where one can throw what one likes," was true of the science up to his day. Describe its present matter, methods, and objects.

2. Sketch Bleek's theory of the Pentateuch. To what type of theory does it belong? In what respects has it since been modified by critics?

3. Sketch the history of critical opinion as to the Books of Chronicles, and the grounds on which historical authority has been ascribed or denied to them.

4. What are the views of Ewald, Delitzsch, Cheyne, as to the origin and date of the Psalter as a whole? Mention also their views as to the existence of Davidic Psalms.

History of Canon and Text of Old Testament.

5. State and examine the Jewish legends as to the formation of the present canon of the Old Testament.

6. Mention the explanations offered of the threefold division of the Old Testament. What is the popular one now? Give its grounds. Is any one principle capable of explaining the phenomenon?

7. Where is the Jewish Canon to be found? When was it closed?

8. Account for the amount of corruption in the present Hebrew text.

Pauline Epistles.

9. Give the names of the principal critics who question the authenticity of Colossians. State accurately and fully the various objections that have been taken to it. Examine the objections derived from the matter of the Epistle.

10. Which are the Epistles whose integrity has been called in question? Examine the question of the integrity of Romans.

11. Discuss the thesis: "Paul hardly ever alludes to the human life and teaching of Jesus." Refer to the views of Baur, Keim, Hausrath, Pfleiderer.

12. Examine Steck's theory on Galatians, and its relation to Acts. Examine Steck's theory that [the four usually admitted Pauline Epistles are dependent on our Gospels.

13. It is said that modern criticism includes 1 Thess. and Philipp. among the genuine letters of Paul. Refer to the views of the leading critics.

New Testament Textual Criticism.

14. St John v. 3, 4: Ἐκδεχομένων τὴν τοῦ ὕδατος κίνησιν. Ἄγγελος γὰρ κατὰ καιρὸν κατέβαινεν ἐν τῇ κολυμβήθρᾳ, καὶ ἐτάρασσε τὸ ὕδωρ· ὁ οὖν πρῶτος ἐμβὰς μετὰ τὴν ταραχὴν τοῦ ὕδατος, ὑγιὴς ἐγίνετο, ᾧ δήποτε κατείχετο νοσήματι.

State the evidence for and against the received text.

15. Give an account of the Egyptian versions of the New Testament and their importance.

16. τὸν πατέρα τοῦ κυρίου ἡμῶν Ἰησοῦ χριστοῦ ℵ^{c}DEFGKL Codd. Lat. ap. Hieron; Vulg. Syrr. (Pesh-Harcl.) Goth. Arm. Orig. 1/3, Orig-lat. *pluries*. Bas. Chrys.

τὸν πατέρα (*tantum*) ℵ*ABCP, Memph. Aeth. Orig. 2/3; Cyr. Hier.

Sum up the evidence and give your own conclusions, stating what you know of FGKLP, and of the versions named. What is the meaning of the references to Origen?

THE DEGREE OF BACHELOR OF DIVINITY.

13th April 1894.

1 Clarence Dunlop M'Kinnon, M.A.
Thomas Marjoribanks, M.A.
Arthur Silver Morton, M.A.
Alfred Harold Mumford, B.A.
5 John Ritchie, M.A.
William Barron Stevenson, M.A.
Robert Venters, M.A.
8 James Wedderspoon, M.A.

DEGREE OF DOCTOR OF DIVINITY (D.D.).[1]

The Degree of Doctor of Divinity is conferred *honoris causâ tantum:*—and is granted in absence in special cases only. The Register of Doctors of Divinity begins in 1709, with the names of Edmund Calamy, Daniel Williams, and Joshua Oldfield. The names of Evans, Harris, and Isaac Watts follow in 1728. The Register now includes above 300 names.

The following is a list of those who have received the Degree of Doctor of Divinity in the years 1889-94 inclusively[2]:—

1889.

*Griffith John
*Professor Abraham Kuenen
Archibald Henry Sayce, M.A.
Norman M. L. Walker

1890.

David Douglas Bannerman
R. H. Lundie, M.A.
Canon J. H. Overton

1891.

Richard Glover.
Robert Hutton, M.A.
*John Gibson Paton.
D. W. Simon, M.A., Ph.D.

1892.

William Balfour
Cornelius Giffen
Newham Hall

1893.

Thomas Nicol, B.D.
Thomas B. W. Niven.
George Adam Smith.
James Wells, M.A.

13th April 1894.

Rev. William Hastie, M.A., B.D., formerly Principal of the General Assembly Institution, Calcutta.
Rev. J. A. M'Clymont, M.A., B.D., Holburn Church, Aberdeen.
Rev. J. C. M'Phail, Pilrig Free Church, Edinburgh.
Rev. William Muirhead, London Missionary Society, Shanghai, China.

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[1] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent ceremonial, on giving at least a week's notice.

[2] The names of those who received the Degree, prior to 1859, will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University, since its foundation," published in 1858, and the names of those who received the Degree from 1859 to 1888, both years included, will be found in the List of Graduates, published in 1889.

* Conferred *in absentia.*

Bursaries, Scholarships, Fellowships, &c.

I.—BURSARIES.

A.—Presentation Bursaries.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	Years.	Annual Allowance to each Bursar	Patrons.
I.	1703	Agnes Nairne.	£3 0 0	1	1	..	Senatus Academicus.
II.	1715	Sir James M'Lurg of Vogrie, sometime Dean of Guild of Edinburgh.	8 6 8	1	4	£8 6 8	Dean of Guild of Edinburgh, and Wm. Brown, Esq., surgeon, alternately
III.	1764	Rev. John Penman, Minister of Bothkennar.	8 0 0	1	4	8 0 0	R. G. G. Gilmour of Craigmillar.
IV.	1766	Rev. Robert Alexander, Minister of Girvan.	About 19 0 0	1	4	About 19 0 0	Kirk-Session of Girvan and Presbytery of Ayr.
V.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk	14 8 0	1	4	14 8 0	Governors of George Heriot's Trust, Principal of the University, Minister of the High Church, & Minister of New Greyfriars' Church.
VI.	1838	Do. Do.	About 23 0 0	1	4	About 23 0 0	The Principal, and Profs. of Hebrew, Divinity, Church History.

I. In abeyance at present.

II. The *M'Lurg Bursary* is tenable for four years at the Theological Classes. *Bursar*—1892, *Robert Hall.*

III. The *Penman Bursary*—1892, *George Beale, M.A.*

IV. This Bursary consists of the interest of £420, lent on heritable security, and of £75, 17s. of accumulated interest. It must be held by a Student from the parish of Girvan, presented by the Session; whom failing, by one within the Presbytery of Ayr, to be appointed by the Presbytery. *Vacant.*

V. The *Blair Bursary* can be held only by a young man who has been brought up in George Heriot's Hospital, and has become a Student of Divinity in the University of Edinburgh. The amount depends on the rate of dividend payable on the stock in which the foundation money is invested. *Bursar*—Vacant.

VI. To be applied for the benefit of a Student of Divinity, whether a graduate or not. *Bursar*—1892, *Alex. R. Howell, M.A.*

B.—Competition Bursaries.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1646	Buchanan of that Ilk.	£20 16 8	2	3	£10 8 4	Town Council.
II.	1666	William Struthers.	13 17 9	1	3	13 17 9	Do.
III.	1685	Archibald Leighton.	7 10 0	1	3	7 10 0	Do.
IV.	1687	Andrew Ramsay and Sir Andw. Ramsay of Abbotshall.	16 13 4	1	3	16 13 4	Do.
V.	1695	King William III.	50 0 0	2	2	25 0 0	Senatus Academicus.
VI.	1867	Miss Mary Ettles of Inverness.	About 110 9 3	3	3	About 35 0 0	Senatus.
VII.	1873	Grierson of Ogscastle's Trustees.	80 0 0	3	1	26 13 4	Senatus.
VIII.	1878	Mrs Isabella Webster.	150 0 0	£2 3	3	56 5 0	Senatus.
				£1 3	3	37 10 0	
IX.	1878	Dr Andrew Thomson	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.
X.	1879	Mrs Barbara Mylne.	30 0 0	1	3	30 0 0	Moderator, Procurator, and Principal Clerk of General Assembly.
XI.	1838	J. Stewart Hepburn of Colquhalzie, Esq.	13 2 6	1	3	13 2 6	Committee of the Presbytery of Edin.
XII.	1858	Do. Do.	13 2 6	1	3	13 2 6	Do.
XIII.	1864	Do. Do.	13 2 6	1	3	13 2 6	Do.
XIV.	1882	William Renton.	19 17 8	1	3	19 17 8	Profs. of Theology.
XV.	1884	Robert Hunter.	33 15 0	2	2	About 16 17 6	Principal and Profs.
XVI.	1889	James Simson, Edinburgh.	175 0 0	7	3	25 0 0	Presbytery of Edinburgh.
XVII.	1892	Thomas Lockerby, London.	About 25 0 0	1	3	About 25 0 0	Senatus.

I. By Ordinance, No. 79, of the Scottish Universities' Commissioners, and subsequent Order of her Majesty in Council 1868, each of the Buchanan Bursaries is open for competition to all Masters of Arts of any of the Universities of Scotland, or to Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours, entering on their first or second Session in the Faculty of Divinity in the University of Edinburgh. No person is admissible to competition who has for more than one Session been a Student in the Faculty of Divinity in any of the Scottish Universities. Each Bursar holds his Bursary for three years, subject to this condition, that he shall, during that period, give regular attendance, as a Student of Theology, in the University. If it appears to the Senatus Academicus desirable, for the purpose of distributing the benefits of competitive Bursaries in Theology among Students of different years, it is lawful, for that purpose only, to appoint a Student for a shorter period. No person can hold the Bursary along with any other Bursary, Fellowship, or Scholarship in any Scottish University. *Bursars*—Vacant.

II. By Ordinance, No. 80, of the Universities' Commissioners, and subsequent

Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. *Bursar*—Vacant.

III. By Ordinance, No. 85, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. *Bursar*—Vacant.

IV. By Ordinance, No. 81, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. *Bursar*—1893, *Donald Munro, M.A.*

V. By Ordinance, No. 76, of the Universities' Commissioners, and subsequent Order in Council, each King William Bursary is open to competition to all Masters of Arts of any of the Universities of Scotland, or Students who have passed the necessary examinations for the Degree of M.A., and who have attended for one Session, and no more, in the Faculty of Divinity in the University of Edinburgh: Provided that no person shall be a competitor who has attended for one or more Sessions in the Faculty of Divinity in any other of the Scottish Universities. The examinations in the competition shall be conducted by the Professors in the Faculty of Divinity in the University. Each Bursar shall hold his Bursary for two years, subject to the condition that he shall, during that period, give regular attendance as a Student of Theology in the University. No person shall hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University. When the two Bursaries fall vacant at one time, one Bursar shall be appointed for two years, and the other for one year. *Bursar*—1894, *W. L. Gordon, M.A.; Walter Lamb, M.A.* (one year).

VI. Founded in memory of her brother, J. Ettles, Esq., of Havannah. Open to those who have passed all the examinations for M.A., and are in the first year of their theological course. Cannot be held with any other Bursaries or Scholarships. *See* Deed of Foundation in CALENDAR for 1867-68. *Bursars*—1892, *W. J. Pennell, M.A.* 1893, *Frederick Hendry, M.A.*

VII. As in the case of the Faculty of Arts (see No. LIII.), a student from the parishes of Crawford or Leadhills, is, if found duly qualified in respect of attainments, appointed to a Bursary in his first year, and holds it (unless he has failed to show himself a diligent student) to the end of his Theological curriculum. Failing any student from those favoured parishes, the Bursary or Bursaries will be thrown open to competition, but the winner only holds his Bursary for one year in each case. In the second and third years a student from Crawford or Leadhills has again a preference, but holds the Bursary for one year only. *See* p. 372 of CALENDAR, 1877-78. *Bursars*, 1893—First year, *George Drummond, M.A.*; second year, *William Smith, M.A*; third year, *Robert Venters, M.A.*

VIII. Founded by Mrs Isabella Webster, 38 Heriot Row, Edinburgh, in memory of her husband, George Webster, Esq. There are three Bursaries,—two of £56, 5s. each, and one of £37, 10s., open to Students of Divinity in connection with the Church of Scotland in their first year, who have successfully passed all their Examinations for the degree of M.A. in any Scottish university, whether they have actually graduated or not. Each is tenable for three years. *See* Deed of Foundation in CALENDAR for 1878-79, p. 377. *Bursars*—1892, *J. G. Bailey, M.A.* 1893, *Thomas W. Wilson, M.A.*

IX. For the *Thomson Bursaries* application may be made to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson

or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, preferred. The subjects of Examination are Latin and Classical Greek, Mathematics and Natural Philosophy, Mental Philosophy (including Logic) and Moral Philosophy and Elementary Hebrew, Apologetics, and Greek Testament. *See* p. 374 of CALENDAR for 1880-81. *Bursars*—1891, *John M'William, M.A.* 1892, *Charles Edward Stuart.* 1893, *Sydney Smith, M.A.*

X. *Mylne Bursary.*—Founded by Mrs Barbara Macaulay or Mylne, in memory of her husband, the Rev. Andrew Mylne, minister of the parish of Dollar. The Bursary (being the free proceeds of £750) which is for behoof of Students for the ministry of the Church of Scotland, of Scottish birth, tenable during the curriculum in Divinity, is awarded at the end of the session, after examination (of first year's students) on the subjects taught in the Theological Classes during the session. No one may become a Candidate who has not given his whole time to study during the session preceding the date of Examination, nor may the holder engage in paid work during any session in which he holds the Bursary. It cannot be held along with any other Bursary, Scholarship, or Endowment. *See* Deed of Foundation at page 377 of CALENDAR for 1880-81—Vacant.

XI., XII., and XIII. The sums attached to these Bursaries are payable to Divinity Students of the Church of Scotland of the first or second year towards the expense of their education at the University of Edinburgh. Each is tenable for three years. For one bursary Gaelic-speaking students have a preference; for all, Students from the Presbyteries of Weem and Auchterarder.

XIV. Founded by the late William Renton, of 20 Royal Terrace, Edinburgh. The Faculty of Theology are the Patrons and Trustees. The Bursary may be held for three years, if the Bursar continues so long to prosecute his studies in Theology at the University of Edinburgh, with a view to the ministry in the Church of Scotland, and if not, then for the whole period he continues at the same. The student presented must have attained the age of sixteen, and not exceed the age of twenty-one years, and must be appointed after an examination in the month of November on such subjects as the Professors of the Faculty of Theology consider proper. *Bursar*—1893, *Walter R. Henderson, M.A.*

XV. Founded by the late Robert Hunter, Dalhousie, Chesters; the Principal and Professors being Patrons. These Bursaries are for the benefit of Students of the Church of Scotland, and are awarded at close of first Session in Divinity, and are tenable for two years. Bursars must attend two Sessions in Chemistry and Geology, taking at least one of these Classes each Session. Students of the name of Hunter and Hamilton from the parishes of Temple or Cockpen have a preference, but preferential Candidates must attain to a fixed percentage. Bursars must produce certificates of diligence in the Classes of Chemistry and Geology. See excerpt from Deed of Foundation, page 437 of CALENDAR for 1885-86. *Bursar*—1894, *Henry M. Lamont, M.A.*

XVI. These Bursaries are open to Students who are entering on their first Session in Divinity, and are tenable for three years. For further details and subjects of examination (which differ somewhat from the University Examination for first year's Bursaries), apply to the Rev. Dr Langwill, Currie, or to the Rev. John Patrick, Greenside, Edinburgh. *Bursars* — 1893, *John Henderson, M.A.; Thomas Duncan, M.A.; George White, M.A.*

XVII. Founded by the late Thomas Lockerby, Esq., London. The Bursary is

tenable for three years, and is open to "Students who desire to become ministers of the Church of Scotland only." *See* Excerpt from Disposition, page 545 of CALENDAR for 1890-91. *Bursar*—1892, *D. G. Hamilton, M.A.*

C.—PRESENTATION BURSARIES, Open only to Graduates or Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1695	Robert Bayne of Pitcairley.	£25 0 0	1	3	£25 0 0	Society of Sons of the Clergy.
II.	1695	James Nairne.	16 13 4	1	3	16 13 4	Prof. of Divinity.

I. This formerly belonged to Ferguson of Raith, and was sold by him to the late Principal Lee; and by Principal Lee's representatives to Professor Crawford; and by Professor Crawford's representatives to the Society for the Sons of the Clergy. By Ordinance, No. 71, of the Universities' Commissioners, and subsequent Order in Council, the following are the regulations as to this Bursary:—Each Bursar shall hold the Bursary for three years, subject to the condition that he shall, during that period, give regular attendance as a Student in Theology in the University of Edinburgh. No person shall hold the Bursary along with any other Bursary, or with any Scholarship in the University. *Bursar*—Vacant.

II. This Bursary is tenable for three years, or for such period as the Bursar shall give regular attendance as a Student of Theology in the University of Edinburgh. *See* Ordinance, No. 67, of the Universities' Commissioners, and subsequent Order in Council. *Bursar—W. Landale.*

D.—BURSARIES gained in Faculty of Arts, the holders of which are at liberty to study in the Faculty of Divinity.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1809	Dr Donald Grant, London.	£180 0 0 About	2	4	£90 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0 About	Principal and two Professors.
III.	1871	The Sibbald Trustees.	150 0 0	5	3	30 0 0	The Trustees of Dr J. R. Sibbald.
IV.	1889	Daniel Maclaurin, London.	70 0 0	1	4	70 0 0	Town Council.

I. *See* under Faculty of Arts.
II. *See* under Faculty of Arts.
III. *See* under Bursaries in Arts.
IV. *See* under Faculty of Arts.

II.—PRIZES.

I.—BARTY MEMORIAL PRIZE.

The Barty Memorial Prize of £20 for scholarship in Hebrew and Hellenistic Greek is open to entrants to the Divinity Halls of the four Scottish Universities.

II.—HEPBURN PRIZE.

The Hepburn Prize of £25 (which may be divided), open to all Students in actual attendance at the Divinity Hall, may be awarded annually for an essay on a prescribed subject.

III.-XII.—THE GUNNING VICTORIA JUBILEE PRIZES.

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded ten prizes in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Prizes."

These prizes are ten in number, and comprise a series of five prizes of £50, £40, £30, £20, and £10, for excellence in Theological subjects, and a series of five prizes of similar values for excellence in Natural Science subjects. In their order the prizes in each series correspond in value. A minimum standard of proficiency will be required in each series. The successful competitors may each take both the prize in the Theological, and the prize in the Natural Science series to which their marks may respectively entitle them.

The prizes are competed for triennially at the close of the Divinity Session, and are open to all Students of the Church of Scotland, or other Scottish Churches holding the Confession of Faith, who are graduates of this University, or have attended two classes in the Faculty of Divinity in this University, and who have completed their Theological curriculum within two years of the close of the session when the competition takes place.

The examination in the Natural Science series will be on Natural History, Botany, and Geology, and of the same standard as the First B.Sc. Examination in Natural Science. The Examination in the Theological series will be in Theology proper, the Language and Literature of the Old Testament, Ecclesiastical History, and Biblical Criticism.

The Examiners are the Professors of the subjects of examination in the University of Edinburgh; with the addition of a member of the

Senatus of the New College, to be appointed by the Faculty of Divinity. See Revised Scheme, p. 519 of CALENDAR 1889-90.

The next examination under this scheme will be held at the close of Session 1895-96.

Theological Series—1st Prize—D. M. Kay, B.D., B.Sc.
2nd ,, Adam W. Fergusson, B.D.
3rd ,, Alexander Grieve, M.A.
4th and 5th Prizes not awarded.

Natural Science Series—1st and 2nd Prizes not awarded.
3rd Prize—Adam W. Fergusson, B.D.
4th ,, Alexander Grieve, M.A.
5th ,, D. M. Kay, B.D., B.Sc.

III.—SCHOLARSHIPS.[1]

I.—PITT CLUB DIVINITY SCHOLARSHIP.

This Scholarship was instituted in 1862 by the Pitt Club, is of the annual value of £111, 8s. 2d., and is tenable for three years. By Ordinance No. 77, of the Universities' Commissioners, this Scholarship is open to competition to all Masters of Arts of any of the Universities of Scotland who have given regular attendance in the Faculty of Divinity in the University of Edinburgh for three complete Sessions, and who are in the course of studying, with the view of becoming Clergymen of the Church of Scotland. No person is admissible who has been entered as a Student of Divinity more than six years prior to the time of the competition.

Candidates are examined on (1) The Evidences of Revealed Religion; (2) Systematic Theology; (3) Hebrew; (4) Church History; (5) Biblical Criticism. It cannot be held with any other Scholarship, Fellowship, or Bursary of any Scottish University, or along with any parochial or pastoral charge, whether as minister or assistant.

1890. Alex. S. Martin, M.A.
1893. *David M. Kay, B.Sc., B.D.*

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[1] The names of Scholars are retained in the Calendar for five years.

It has been agreed by the Senatus and the Faculty of Divinity, in regard to the Fellowships and Scholarships of the funds of which they are severally the administrators, that

1. The *Pitt Theological Scholarship* (£108, 2s. 8d.) shall be competed for when it falls vacant.

2. The *Aitken Theological Scholarship* (£103, 14s. 2d.) shall be reserved from competition when it falls vacant in the same year with the Pitt.

3. The *Glover Divinity Scholarship* (£34, 8s.) shall (according to its conditions) not be open to competition when the Pitt or Maxton may be open, and shall be similarly reserved when the Aitken is open.

4. That meanwhile the *Maxton* (£42, 8s.) be competed for when it is vacant.

II.—MAXTON DIVINITY SCHOLARSHIP.

This Scholarship was founded by the Trustees of the late John Maxton, Esq., in 1867, is of the annual value of £42, 8s., and is tenable for three years. It is open only to Students who are members of the Established Church of Scotland, and who have completed the course of study in the Faculty of Divinity in the University of Edinburgh. *See* Deed of Foundation, at p. 234 of CALENDAR for 1867-68.

1890. John James Galloway, M.A.
1893. *Adam W. Fergusson, B.D.*

III.—THE GLOVER DIVINITY SCHOLARSHIP.

This Scholarship was founded in 1875 by Subscribers to a Fund for commemorating the memory of the Rev. W. Glover, D.D., and by the University Endowment Association. It is of the annual value of about £34, 8s., tenable for three years, and open to all Masters of Arts of any of the Universities of Scotland who have finished their study of Theology, before entering the Church of Scotland, within six years, and who have attended the last Session of their course at least in the University of Edinburgh. It cannot be held with any other Divinity Scholarship or Bursary in any Scottish University, and it is not offered for competition in any year where there is a vacancy in the Pitt Divinity Scholarship or the Maxton Divinity Scholarship. *See* Deed of Foundation, at p. 343 of CALENDAR for 1875-76.

Robert Venters, M.A., B.D.

IV.—THE AITKEN THEOLOGICAL SCHOLARSHIP.

This Scholarship, founded in 1875 by bequest of the Rev. David Aitken, D.D., formerly minister of Minto, is of the annual value of £109, 19s. 2d. Its purpose is to make provision for the study of Church History and Biblical Criticism at one or more University Seats in Germany, or elsewhere on the Continent of Europe, in the case of meritorious students at Edinburgh University. It is to be awarded, after competitive examination (on due proficiency being shewn), to a Student in Divinity of the University of Edinburgh, who is a Graduate in Arts of that University of not more than four years' standing. It is tenable for two years; but the Senatus may extend the term for another year if it appear to them desirable. The time of the competition to be fixed and publicly intimated by the Senatus at least three months before; and the Senatus are also at liberty to prescribe whether one Semester or two Semesters in the foreign University shall be attended in each year. It is not offered for competition in the same year as the Pitt Divinity Scholarship or the Glover Divinity Scholarship. *See* Deed of Foundation at p. 344 of CALENDAR for 1876-77.

1889. John C. Matthews, B.D. | 1892. *J. J. Trotter, M.A.*

V.—THE DAVID KIDD DIVINITY SCHOLARSHIP.

This Scholarship, which is of the annual value of £34, 6s. 10d., is tenable for three years, and is awarded, after competitive examination in Theology (same as for B.D.), to students of any of the Universities of Scotland who are natives of Scotland, and who have finished their course of study with the view of becoming Ministers of the Church of Scotland. *See* Deed of Foundation in CALENDAR for 1879-80, p. 354.

1892. *David A. Rollo, B.D.*

VI.—VANS DUNLOP SCHOLARSHIP IN HEBREW AND ORIENTAL (SEMITIC) LANGUAGES.

The Competition is open to all Matriculated Students (*a*) who have regularly attended Classes in the University for not less than two and not more than seven years, (*b*) who have attended at least two courses under the Professor of Hebrew and Oriental Languages, and (*c*) who have not discontinued attendance at the University for more than one year.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Oriental Languages, and an Examiner to be appointed by the Senatus.

The conditions of tenure are the same as those applicable to the Vans Dunlop Scholarships in Arts. The next competition will take place in March 1896.

1890. James Thomson, M.A., Charles H. Titterton, M.A. } equal.
1893. *William B. Stevenson, M.A.*

VII.—VANS DUNLOP SCHOLARSHIP IN HISTORY.

The competition is open to all Matriculated Students of not less than two, and not more than six, years' standing, who have attended one or more courses of Lectures either by the Professor of History or by the Professor of Ecclesiastical History, and who have not discontinued attendance at the University for more than one year. The Examiners are the Professor of History, the Professor of Ecclesiastical History, and either the Professor of Humanity or the Professor of Greek. The next Examination will be held in October 1895.

VIII.—BRUCE OF GRANGEHILL AND FALKLAND SCHOLARSHIPS.

These Scholarships were founded in 1865 by Mrs Tyndall Bruce of Falkland, and are of the annual value of £100. They come into operation only when a vacancy occurs in any one of the three Scholarships of this name in the Faculty of Arts, by the death, resignation, or dismissal, of a Scholar during the period of his tenure of the Scholar-

ship; and are tenable in this Faculty during the remainder of that period. They cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 a year. The subjects of Examination are prescribed from time to time by the Faculty.

1891. David A. Rollo, M.A. | 1893. *Thomas Marjoribanks, M.A.*

IX. and X.—THE JEFFREY SCHOLARSHIPS.

These Scholarships, two in number, were founded in 1887 by Miss Jane Jeffrey of Victoria Terrace, Portobello. They are each of the annual value of about £77, and are tenable for one year. They are awarded annually for special proficiency in the subjects embraced in each of the four departments of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism; and are open to Students of Divinity in connection with the Church of Scotland who shall have given regular attendance for at least one Session on the Divinity Classes in this University, including the class with which the Scholarship competed for is specially connected. They are competed for in the following order:—first year, Divinity, and Hebrew and Oriental Languages; second year, Ecclesiastical History and Biblical Criticism; and so on from year to year. The Examination at the close of Session 1894-95 is in Divinity and in Hebrew and Semitic Languages. *See* Deed at page 497 of CALENDAR for 1888-89.

1890. *Ecclesiastical History*—Peter Macgregor, M.A.
Biblical Criticism—Samuel Dunlop, B.A.
1891. *Divinity*—James M. Kirkpatrick, M.A.
Hebrew and Arabic—James N. Cuthbert, M.A.
1892. *Ecclesiastical History*—John Kennedy, M.A.
Biblical Criticism—S. J. Ramsay Sibbald, M.A.
1893. *Divinity*—William Knowles, M.A.
Semitic Languages—James Wedderspoon, M.A.
1894. *Ecclesiastical History—L. Clarence D. Douglas* and *John Ritchie*, M.A., equal.
Biblical Criticism—Thomas Majoribanks, M.A., B.D., and *William Smith, M.A.*, equal.

XI.—COBB SCHOLARSHIP.

This Scholarship, founded in 1889, is a bequest by the late Miss Matilda Johnston Cobb, Broughty Ferry. It is of the annual value of £35, and is tenable for three years. The subjects of Examination are Hebrew, Greek, Latin, and Mathematics, and the Scholarship is open to competition amongst Students who are entering on the study of Divinity with a view to becoming Ministers of the Church of Scotland.

1890. John Hunter, M.A. | 1893. *Andrew Tweedie, M.A.*

SCHOLARSHIPS, BURSARIES, AND UNIVERSITY PRIZES, OPEN FOR COMPETITION IN THE FACULTY OF DIVINITY DURING THE ACADEMIC YEAR COMMENCING 1ST OCTOBER 1894.[1] [2]

I.

Bruce of Grangehill Scholarship, annual value £100, tenable for at least two years. Particulars at page 484.

II. PRESENTATION BURSARIES.

1. *The Blair*, No. V., page 476.
2. *The Alexander Bursary*, No. IV., page 476.
3. *The Penman*, No. III., page 476.

III. PRESENTATION BURSARIES. OPEN ONLY TO GRADUATES OR STUDENTS WHO HAVE PASSED THE NECESSARY EXAMINATION FOR THE DEGREE OF M.A., BUT HAVE DEFERRED THEIR GRADUATION WITH A VIEW TO HONOURS.

The Bayne, No. I., page 480.

IV. COMPETITION BURSARIES.

The Bursary Examination at the beginning of Session 1894-95, wil be held on Friday, 9th, and Saturday, 10th November, commencing at 10 A.M. each day, when the following Bursaries will be open for competition :—

1. *One Webster Bursary*, No. VIII., pages 477, 478.
2. *One Ettles Bursary*, No. VI., pages 477, 478.
3. *One Thomson Bursary* may be vacant, No. IX., pages 477, 479.
4, 5. *Two Buchanan Bursaries*, No. I., page 477.
6. *The Struthers Bursary*, No. II., pages 477, 478.
7. *The Leighton Bursary*, No. III., pages 477, 478.

The subjects of examination for the above, and for *any other ordinary competition Bursary for first year's Students that may be vacant* at the opening of the Session will be—

(1.) *Latin*—Tacitus' "Germania," and translation from English into Latin prose.
(2.) *Greek*—Sophocles' "Œdipus Colonoeus," and Demosthenes' "Philippic," III.

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[1] *Note.*—None of the undernoted Bursaries or Scholarships can be held along with any other Bursary, Fellowship, or Scholarship in any Scottish University. None of the after-mentioned Prizes are subject to this condition.

[2] The values of the Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c. For further information and for information regarding other Scholarships, Bursaries, and Prizes, &c., see pages 476 to 485.

(3.) *Mathematics*—"Euclid," Books I.-VI.; Algebra and Elementary Trigonometry.
(4.) *Metaphysics*—Ferrier's "Lectures on Greek Philosophy."
(5.) *Moral Philosophy*—Sidgwick's "History of Ethics."
(6.) *Natural Philosophy*—Blaikie's "Elements of Dynamics," and Balfour Stewart's "Elementary Physics."
(7.) *Hebrew*—Davidson's Grammar and Exercises.
(8.) *Apologetics*—Flint's "Antitheistic Theories."
(9.) *Greek Testament*—Acts of the Apostles and Epistle to Romans.

8, 9, 10. *Grierson Bursaries*, No. VII., pages 477, 478.

The subjects of examination for the Grierson Bursaries, if there be competition, will be :—

For the *first* year—

Same as for ordinary Competition Bursaries, except that *Hebrew*, *Apologetics*, and *Greek Testament* are omitted.

For the *second* year—

(1.) *Latin*—Lucretius, Book V., and Livy, Book II.
(2.) *Greek Testament*—Gospel of St Matthew, and Pastoral Epistles.
(3.) *Hebrew*—Grammar; Joshua, chapters i.-x. inclusive; Psalms i.-viii. inclusive; Hebrew Prose Composition.
(4.) *Divinity*—The Trinity; Doctrine of Sin.
(5.) *Ecclesiastical History*—To 325 A.D.
(6.) *Biblical Criticism*—Charteris' "Christian Scriptures."

For the *third* year—

(1.) *Apologetic Theology*—Butler's "Analogy."
(2.) *Hebrew*—Judges, Amos, Psalms, Book iii.
(3.) *Ecclesiastical History*—To 325 A.D., and of Scotland, 1500 A.D. to 1600 A.D.
(4.) *Biblical Criticism*—"Canonicity," pp. 1-23; 53-75.

11, 12, 13. *Three Simson Bursaries*, No. XIII., pages 477, 479.

14. *One Hepburn Bursary* (about £13), open for competition by all Students of first or second year in Divinity. Preference given to Students from Presbyteries of Weem and Auchterarder. Subjects of Examination: *Butler's Analogy*, Part I., and *Lightfoot's Epistle to the Colossians*, with the dissertations, and Professor Stewart's text-book of *Christian Evidences*. For particulars apply to the Rev. Dr Scott, minister of St George's, Edinburgh, or Rev. Dr Langwill, Clerk of the Presbytery of Edinburgh.

15. *A Hepburn Prize*, £25 (which may be divided), for the best Essay on "The Westminster Confession," to be competed for by Students of second or subsequent year. The Essay not to exceed fifty

pages 4to, and to be handed to Rev. Dr Scott, 16 Rothesay Place, Edinburgh, on or before 1st December 1894.

13. *Barty Memorial Prize*, of about £20, for Scholarship in Hebrew and Hellenistic Greek, is open to entrants to the Divinity Halls of the four Scottish Universities. Competitors to apply to J. W. Barty, Esq., Dunblane.

Travelling Scholarship for Bible Lands, including Greece.—This Scholarship, of the value of £150, will be open for competition in September 1894 to all Graduates in Arts who have in March or April of the current year completed either their second or third Session of Study in the Divinity Hall of any Scottish University, with a view to the ministry of the Church of Scotland. The holder will be required to leave in October for the East, and to spend (1) not less than three months in Greece, devoting there the main part of his attention to the living language of the country; and (2) not less than six months in Syria and Egypt, devoting special attention to the study of Arabic during this period.

The subjects of examination will be (1) Classical and New Testament Greek; (2) Hebrew; (3) a prescribed portion of Early Church History; (4) some work or works on Bible Archæology and Egyptian History. Details of the examination and conditions of tenure will be intimated in the May number of the Church of Scotland *Mission Record*.

At the close of Session 1894-95, the following will be open for competition:—

1. *The Aitken Scholarship*, No. IV., page 483.

2, 3. *Two Jeffrey Scholarships*, one for special excellence in Divinity, and one for special excellence in Hebrew and Semitic Languages. Nos. IX. and X., page 485.

The subjects for the Scholarship in Divinity are:—

1. Davidson's "Theism and Human Nature."
2. Müller's "Christian Doctrine of Sin."
3. The Resurrection of the Dead and the Intermediate State.

The subjects for the Scholarship in Hebrew and Semitic Languages are:—

1. Hebrew—Isaiah, Chapters i.-xxiii.; Psalms, cvii.-cxxviii; Composition.

2. Syriac—Acts of Apostles, according to the Peschitta version; Composition.

3. Socin's Grammar, and Chrestomathies "A and B"; Composition.

4. *One Robert Hunter Bursary*, No. XII., pages 477, 479. The subjects of examination are the work of the Session in the Classes of

Divinity, Ecclesiastical History, Biblical Criticism, and Junior Hebrew. Bursars must attend two Sessions in Chemistry and Geology, taking at least one of these classes each Session. Students of the name of Hunter and Hamilton, from the parishes of Temple and Cockpen, have a preference, but preferential Candidates must attain to a fixed percentage. Bursars must produce certificates from the Professors of Chemistry and Geology. Examination as for "King William." These Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in any Scottish University.

5. *The Mylne Bursary*, No. X., pages 477 and 479. Examination as for the "Robert Hunter."

UNIVERSITY PRIZES.

1. The *Lord Rector's Prize*, No. II., page 317.
2. *Two Gray Prizes*, No. VI., page 317.

William Dickson Travelling Fund, page 313.

The attention of all Bursars in the Faculty of Divinity is particularly called to the following Regulation :—

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty of Divinity on each occasion on which he applies to the Factor for a payment. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

M. C. TAYLOR, D.D.,
Dean of the Faculty of Divinity.

IV.

FACULTY OF LAW.

1894-95.

Dean.

PROFESSOR SIR LUDOVIC J. GRANT, BART., B.A.,

29 *India Street.*

Programme of Classes.

FACULTY OF LAW.

WINTER SESSION, 1894-95.

The Classes in the Faculty of Law will open on Tuesday, 16th October, and will close on Wednesday, 20th March 1895.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.
Public Law[1] (*i.e.*, a half-course in Jurisprudence and a half-course in Public International Law)	16 Oct., 3 o'cl.	Prof. Sir Ludovic J. Grant, Bart	£4 4[2]
Civil Law[1]	16 Oct., 4 ,,	Prof. Mackintosh	5 5[3]
Scots Law	16 Oct., 9 ,,	Prof. Rankine	5 5[3]
Conveyancing	16 Oct., 9 ,,	Prof. Wood	4 4
Political Economy & Mercantile Law[1]	16 Oct., 5 ,,	Prof. Nicholson	3 3
Civil and Crim. Procedure (*Mondays*).	15 Oct., 5 o'cl. 20 *Lectures.*	Lecturer—John P. Coldstream, W.S.	1 1[4]
Practical Class (*Wednesdays*)	17 Oct., 10.30 to 12.30		3 3[4]

SUMMER SESSION, 1895.

The Classes in the Faculty of Law will open as follows, and will close on Saturday, 20th July.

Classes.	Days of Opening, and Hours of Lectures.	Professors.	Class Fees.
Civil Law[1]	13 May, 4 o'clock	Prof. Mackintosh.	£5 5[3]
Constitutional Law and History[1, 5]	13 May, 5 ,,	Prof. Kirkpatrick.	3 3
Scots Law	14 May, 9 ,,	Prof. Rankine	5 5[3]
Med. Jurisprudence	1 May, 10 ,,	Prof. Sir D. Maclagan	4 4

[1] Qualifying also for the degree of M.A.

[2] For a half-course, £2, 2s.

[3] This Fee is paid in Winter, and includes the Winter and Summer Sessions. Second Year's Course, £3, 3s. Fee for Winter Session only, £4, 4s.; for Summer Session only, £2, 2s.

[4] Five Shillings University Entrance Fee for non-matriculated Students.

[5] A full Winter Course on Constitutional Law and History will begin in October 1895, and the Summer Course will be discontinued. Fee £4, 4s.; half-course, £2, 2s. (Students who require a full course and who have already paid a fee of £3, 3s. for a half-course, pay £2, 2s. only for the second half-course.)

MATRICULATION FEES.

For the Academical Year, 1st October to 1st October, .	£1 1 0
For the Summer Session only, 1st May to 1st October, .	0 10 6
But Candidates who appear for Examination in July, or for Graduation in August, are required to pay the Matriculation fee of £1, 1s., unless already Matriculated for the whole year.	
University entrance-fee in lieu of Matriculation for each of certain additional Courses (see Class Lists), . . .	0 5 0

Courses of Lectures.

1894-95.

I. CIVIL LAW.

PROFESSOR MACKINTOSH.

The Course of Lectures on Civil Law extends over a Winter and a Summer Term, covered by one entrance-fee of £5, 5s. The Winter Lectures usually begin on 15th October, and continue until 20th March; the Summer Lectures usually begin on 12th May, and end on 20th July.

The subject-matter of the Course is during the Winter Session the same as that qualifying for Graduation in Arts. See page 116. The Summer Session will be devoted to the doctrines of Succession, Obligations, and Contract. The Contract of Sale will be dealt with in detail.

The Lectures will be equally adapted for Students intending to enter the legal profession in Scotland or England, or qualifying for service in India or the Colonies.

Text-Books.—The works mentioned on page 116, and the Professor's "Roman Law of Sale."

The "Muirhead Prize" and the "Forensic Prize" are offered annually for competition.

II. SCOTS LAW.

PROFESSOR RANKINE, LL.D.

Students are strongly recommended to make themselves familiar either with Erskine's "Principles" or his "Institutes" (edition by J. Badenach Nicolson, Esq., 1871). A new edition (the eighteenth) of the former work is the text-book of the Class.

1. Sketch of the Literature of the Law of Scotland—the sources of the Law—the interpretation of Statutes.

2. Personal Relations—marriage and the modes of proving it—patrimonial effects of Marriage—rights of husband and wife—dissolution of Marriage—divorce—tutors and curators—minors—insane—parent and child—succession—heritable and moveable—wills—trusts.

3. Wrongs—personal injury—defamation—ownership of heritable property—rights and liabilities incident thereto—ownership of moveables—copyright—patents.

4. Obligations and Contracts—general requisites, constitution, and construction — partnership — joint-stock companies—factory and agency—sale—commodate—pledge—letting to hire—leases—carriers—shipping—insurance—bills of exchange—cautionary—extinction of obligations—diligence—bankruptcy.

5. Parochial Law—burgh and county law—rates and taxes.

6. Law of Evidence.

7. Criminal Law.

Summer Session.

The Lectures on Criminal Law, and part of the lectures on the above subjects, are delivered during the Summer Session.

III. CONVEYANCING.

PROFESSOR WOOD.

The course of Lectures delivered from the Chair of Conveyancing will embrace the following subjects :—

BRANCH FIRST—*Deeds in General.*

1. Requisites as to external form, and the solemnities of execution and authentication. 2. Deeds privileged as regards these solemnities. 3. Delivery and acceptance.

BRANCH SECOND—*Deeds relating to Feudal Rights.*

1. Sketch of the feudal system and its bearing on the existing state of heritable rights in Scotland. 2. The writs constituting a feudal estate, and the respective rights of superior and vassal. 3. The writs used in the voluntary transmission, *inter vivos*, of such estate, and of lands formerly held by burgage tenure. 4. Charters by progress. 5. Services and Destinations. 6. Settlements and Marriage Contracts, so far as relating to heritage. 7. Entails.

BRANCH THIRD—*Miscellaneous Rights relating to Heritable Estate.*

1. Servitudes. 2. Leases. 3. Adjudications and Inhibitions. 4. Sequestrations. 5. Trust Deeds for Creditors. 6. Rights in Security. 7. Practical points on Examination of Title.

BRANCH FOURTH—*Miscellaneous Writs, relating mainly to Moveable Rights.*

1. Submissions. 2. Securities over moveables. 3. Cautioner's Writs. 4. Life Insurance Policies Writs. 5. Discharges. 6. Partnership and Company Deeds. 7. Factories. 8. Negotiable Instruments. 9. Shipping Writs. 10. Wills and Marriage Contracts.

IV. PUBLIC LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

Two Courses of Lectures will be delivered from the Chair of Public Law during the Session 1894-5.

1. A Course of Forty Lectures on the Philosophy of Law.
2. A Course of Forty Lectures on Public International Law.

1. The Course of Lectures on the Philosophy of Law will begin on Tuesday, 16th October 1894, at three o'clock.

The Lectures will be delivered five days a week. The course will be divided into two parts—

(*a*) The Science of Natural Law.

Books of Reference.—Lorimer, Institutes of Law. Ahrens, Cours du Droit Naturel. Lerminier, Philosophie du Droit. Bluntschli, The Theory of the State.

(*b*) The Science of Positive Law.

Books of Reference.—The Student's Austin. Holland, Jurisprudence. Markby, Elements of Law. Sir Henry Maine's Works.

2. The Course of Lectures on Public International Law will begin on 8th January 1895.

The Class will meet *four* days a week. The Course will include—

(*a*) An Historical Retrospect.

(*b*) Some Account of the Science and Literature of Public International Law.

Books of Reference.—Ward's Enquiry into the Foundation and History of the Law of Nations. Wheaton's History of the Laws of Nations; Introduction. Nys' Le Droit de la Guerre et les Précurseurs de Grotius; and Les Droits des Indiens and les Publicistes Espagnols. Phillimore's International Law, Vol. I. Bryce, Holy Roman Empire. Pardessus, Us et Coutumes de la Mer.

(*c*) An examination of the sources and a critical exposition of the leading doctrines of Public International Law.

Books of Reference.—Hall, International Law. Wheaton, International Law. Lawrence, Handbook of International Law. Woolsey, Introduction to the Study of International Law. Hertslet, Map of Europe by Treaty. Letters by Historicus. Pitt Cobbett, Select Cases.

V. CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK, LL.D.

These Lectures, which qualify as a half-Course for Graduation in Law and in Arts, are given in the Summer Session (but from October, 1895, onwards, in the Winter Session, a full Course), daily, except Saturdays, at 5 P.M.; and a fortnightly examination is held on Fridays. Honours Prizes are awarded for distinction in the class-examinations, and in the Essays the subjects of which will be afterwards announced.

Subjects:—(1) The Constitutional History and Law of England; (2) The Constitutions of America, France, Germany, Switzerland, &c. No. 2 will form the subject of the last Summer Course, beginning in May 1895.

(1) For elementary purposes, Students may use Mr Taswell-Langmead's "Constitutional History of England," and Mr S. R. Gardiner's "Student's History of England." For further study they should consult Stubbs's Select Charters and English Constitutional History; Hallam's Middle Ages, Chap. viii.; Hallam's Constitutional History of England, from Henry VII. to George II.; Sir Thomas Erskine May's Constitutional History, from the accession of George III.; The English Constitution by W. Bagehot; Guizot's Lectures on Representative Government; R. Gneist's Self-Government in England, 3d Edition, Berlin, 1871; Gneist's Geschichte und heutige Gestalt der Aemter und des Verwaltungsrechts in England, 2d Edition, Berlin, 1866; Gneist's History of the English Constitution, translated by P. A. Ashworth, London, 1886; and Blackstone's Commentaries, Book IV., of Public Rights.

(2) For elementary purposes, Thwaites' The Colonies (Epochs of American History), Johnston's History of the United States, Macy's Our Government; for further study, Bryce's American Commonwealth, Bancroft's History of the Constitution of the U.S.A., Winsor's History of the U.S.A., Adams and Cunningham's Swiss Confederation, Bard et Robiquet's La Constitution Française, Boutmy's Studies in Constitutional Law, &c.

The Professor's Class Library (adjoining the Lecture Room, and superintended by his Class-Assistant) may be consulted by members of the Class (both ladies and gentlemen) on Mondays and Thursdays, from 10.30 to 1.30 o'clock.

VI. MEDICAL JURISPRUDENCE.

PROFESSOR SIR DOUGLAS MACLAGAN.

For Synopsis of this Course, *see* under Faculty of Medicine.

VII. COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

For Synopsis of this Course, *see* under Faculty of Arts.

LECTURESHIP ON PROCEDURE, CIVIL AND CRIMINAL.

LECTURER—JOHN P. COLDSTREAM, W.S.

This course will embrace an enumeration of the various Courts of Scotland, with the nature of their respective jurisdictions, the actions applicable to each, and the details of the procedure in carrying on the suits, whether civil or criminal.

Text-Books.—Mackay's "Manual" and "Practice of the Court of Session;" Coldstream's "Procedure in the Court of Session;" Dove Wilson's "Sheriff-Court Practice in Civil Causes;" Macdonald's "Criminal Law;" Macdonald's "Criminal Procedure (Scotland) Act, 1887."

There is a Practical Class or Laboratory attached to the Class, which meets once a week for two hours, and in which the Student under instruction prepares the writs and pleadings proper to the action raised.

Class Prize Lists.

SUMMER SESSION, 1893.

CIVIL LAW.

1. Alexander C. Montgomerie Bell, M.A. ("*Muirhead" Prize*); 2. John A. T. Robertson, M.A.; 3. Alexander S. Riach (*Prizemen*); 4. F. M. Anderson, B.A.; 5. Hugo A. Hamilton, M.A.; 6. R. Montgomerie Samson, M.A.; 7. John A. Christie, M.A.; 8. Robert Macfie, M.A.; 9. Mackenzie S. Shaw.

HENRY GOUDY, LL.B., *Professor.*

SCOTS LAW.

1. Robert Connon, Kincardineshire; 2. W. Rose Black, M.A., Morayshire, and David Maxwell, Forfarshire—equal; 4. George Law Sturrock, West Lothian (*Prizemen*); 5. P. M'Leod, Fife; 6. George Reid Donald, Forfarshire; 7. James Cruickshank, Mid-Lothian; 8. Thomas Gibson, Roxburghshire; 9. Dugald Maclean, M.A., Argyllshire; 10. William Murray, Wigtownshire; 11. Thomas S. Veitch, West Lothian; 12. John Macdougall, Inverness-shire; 13. Allan S. Ramsay, Mid-Lothian; 14. Kenneth Maclennan, Ross-shire; 15. William Kemp, Banffshire; 16. John Reed, Dumfriesshire; 17. James Duncan Millar, M.A., Mid-Lothian; 18. Thomas S. Kinnear, Forfarshire; 19. John Nicholson, Mid-Lothian; 20. Thomas Sime, Fife; 21. David Dickson, East Lothian; 22. Charles Soutar, Forfarshire; 23. James C. Edwards, Mid-Lothian.

Essay Prize.—R. A. Lee, Mid-Lothian, and Charles Lippe, Aberdeenshire—equal. *Proxime accessit*—James Miller Thomson, M.A., West Lothian.

JOHN RANKINE, M.A., LL.D., *Professor.*

CONSTITUTIONAL LAW AND HISTORY.

Examinations.—1. James Adamson, M.A. (second year), William Ingram, M.A., D.Sc., and William L. Mathieson, M.A.—equal (*Prizemen*); 4. Hugo A. Hamilton, M.A., and F. M. Anderson, M.A.—equal; 6. A. D. Donald, and Robert Macfie, M.A.—equal; 8. John Romanes; 9. Miss S. Kinnaird Rose, Thomas Dawson, William Mitchell, M.A.; D. N. C. Hogg, M.A.; R. M. Samson, M.A.; J. A. Christie, M.A., and John Mackintosh, M.A.—nearly equal.

ESSAYS.—1. William Ingram, M.A., D.Sc., and William L. Mathieson, M.A.—equal (*Prizemen*); 3. William Mitchell, M.A.; 4. Miss S. K. Rose; 5. John A. Robson.

JOHN KIRKPATRICK, LL.B., LL.D., *Professor.*

MEDICAL JURISPRUDENCE.

FIRST-CLASS HONOURS.—1. T. C. Wade (*Medallist*).
SECOND-CLASS HONOURS.—2. A. B. Barty; 3. J. W. T. Robertson; 4. J. Cowan; 5. J. M. Thomson.

DOUGLAS MACLAGAN, Kt., M.D., *Professor.*

WINTER SESSION, 1893-94.

PUBLIC LAW.

PRIZEMEN.—1. C. Lippe and A. C. M. Bell—equal; 3. J. Rose.
HONOURS.—4. A. D. Donald; 5. C. A. Macpherson; 6. G. E. R. Coldstream.
ESSAY-PRIZE.—A. C. M. Bell.
HONOURABLE MENTION.—C. Lippe, A. Williamson, A. J. Alison, J. M. Thomson.

L. J. GRANT, Bart., B.A., *Professor.*

CIVIL LAW.

PRIZEMEN.—1. James Adamson, M.A. (Edin.); 2. James Dunlop, M.A. (Glas.); 3. Robert Brown.
HONOURS.—4. A. B. Barty, M.A. (St And.), A. M'Callum, M.A. (Edin.), and W. G. D. Simpson—equal; 7. A. J. Alison, B.A. (Oxon.); 8. H. Macdonald; 9. J. Dan. Easson; 10. W. Mitchell, M.A. (Aber.), and A. Duncan Smith—equal; 12. R. D. Melville, M.A. (Edin.)

JAMES MACKINTOSH, B.A., *Professor.*

SCOTS LAW.

1. James Ballantine, M.A., Wigtownshire; 2. John A. T. Robertson, M.A., Dumfries; 3. A. P. Nimmo, M.A., Fife; 4. Hugh A. Hamilton, M.A., Ayrshire; 5. C. J. Poole, Surrey; 6. Alexander Speeden Riach, Mid-Lothian; 7. Robert Carmichael, Mid-Lothian; 8. Francis Walkingshaw, jun., Mid-Lothian (*Prizemen*); 9. J. A. Christie, Fife; 10. Robert Brown, Fife; 11. Anstruther M'Gowan, Dumfriesshire; 12. R. Macfie, M.A., Wigtownshire;

13. Hugh R. Young, Ayrshire ; 14. William A. Thomson, Kincardineshire ; 15. M. S. Shaw, Perthshire ; 16. James F. Whyte, Mid-Lothian ; 17. David B. Ross, Forfarshire ; 18. T. E. Young, Mid-Lothian ; 19. Norman S. Mackay, Mid-Lothian ; 20. Walter Murray, Caithness ; 21. John Romanes, Mid-Lothian ; 22. Frank J. Trotter, Kincardineshire.

JOHN RANKINE, M.A., LL.D., *Professor.*

CONVEYANCING.

1. Robert Connon, Kincardineshire ; 2. George R. Donald, Forfarshire ; 3. William Murray, Wigtownshire ; 4. Thomas Sime, Fife ; 5. George B. Simpson, Forfarshire ; 6. George L. Sturrock, Linlithgow ; 7. W. Rose Black, Morayshire ; 8. James Cruickshank, Morayshire, and William L. H. Paterson, Edinburgh—equal (*Prizemen*) ; 10. Kenneth Maclennan, Ross-shire ; 11. J. Aitken Welsh, Edinburgh ; 12. D. Maxwell, Forfarshire, and Peter M'Leod, Fife—equal ; 14. William Kemp, Banffshire, and B. W. Liddell, Edinburgh—equal ; 16. R. T. Faulds, Roxburghshire, and John Nicholson, Lanarkshire—equal ; 18. D. M. Mackinnon, Argyllshire ; 19. J. H. Gauldie, Forfarshire ; 20. J. Menzies, Edinburgh ; 21. A. B. Fleming, Edinburgh ; 22. J. R. Byres, Dumfriesshire ; Thomas Gibson, Roxburghshire, and Allan S. Ramsay, Forfarshire—equal ; 25. W. R. Doull, Caithness ; 26. William Allan, Linlithgowshire, and John Gulland, Edinburgh—equal ; 28. Thomas S. Veitch, Linlithgow ; 29. Dugald Maclean, Argyllshire ; 30. Hugh S. Smith, Ayrshire ; 31. Patrick T. Mackintosh, Inverness-shire ; 32. A. G. R. Gibb, Edinburgh, and T. S. Kinnear, Forfarshire—equal ; 34. R. W. Gardiner, Edinburgh ; 35. J. A. Waters, Caithness ; 36. Charles Soutar, Forfarshire ; 37. James Fenton, Forfarshire ; 38. John Little, Dumfriesshire ; 39. A. P. Melville, Edinburgh ; 40. J. S. Morton, Edinburgh ; 41. A. W. G. D. M'Killigin, Banffshire ; 42. H. J. Gardner, Edinburgh ; 43. E. Rolland M'Nab, Perthshire ; 44. William Cowan, Edinburgh ; 45. David Cook, Fife ; 46. W. Lindsay Moncur, Forfarshire.

J. P. WOOD, W.S., *Professor.*

CIVIL AND CRIMINAL PROCEDURE.

FIRST-CLASS HONOURS AND PRIZE.—David J. Gair, Edinburgh.

For the Lecturer,

J. J. COOK, LL.B., *Advocate.*

Regulations for Graduation in Law.

Two Degrees in Law are conferred upon Examination in the University of Edinburgh, viz., Bachelor of Law (B.L.) and Bachelor of Laws (LL.B.).

Either Degree admits to the Profession of Law Agent, provided the Candidate has included Scots Law and Conveyancing among his Graduation subjects, and has also passed an Examination in the Practice of the Courts to the satisfaction of the Examiners under the Law Agents Act.

The Degree of LL.B. (if including Scots Law and Conveyancing), admits to the Profession of Advocate without further examination.

Either Degree qualifies for admission to the General Council of the University.

Candidates with the necessary qualifications for either Degree, may present themselves for examination in any number, not less than two, of the subjects prescribed, and they may present themselves on one or more subsequent occasions for examination in the remaining subjects; but on each occasion they must pass in two subjects at least. Two Law Graduation Examinations are held annually, the first beginning on the second Monday in July, and the second on the last Monday in October.

Candidates must enter their names and addresses at the Matriculation Office, show their Certificates, and pay the Examination Fee, at least one week before the first day of the Examination.[1]

A.—NEW REGULATIONS FOR DEGREES IN LAW.

For those who began the Study of Law, with a view to Graduation, before 1st October 1894, *see Regulations B, page* 509.

I. REGULATIONS FOR THE DEGREE OF BACHELOR OF LAWS (LL.B.).

(Applicable to all who begin their Law Studies after 1st October 1894.)

1. No one shall be admitted to examination as a Candidate for the Degree of Bachelor of Laws (LL.B.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom; or of any Foreign

[1] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the candidate can be admitted to examination.

or Colonial University specially recognised for the purpose by the University Court.[1]

II. The course of study in Law for the Degree of Bachelor of Laws shall include the following subjects :—[2]

(1) Jurisprudence, General or Comparative, during a course of not less than forty lectures.
(2) The Law of Nations, or Public International Law, during a course of not less than forty lectures.
(3) Civil Law, during a course of not less than eighty lectures.
(4) Law of Scotland, or Law of England, during a course of not less than eighty lectures.
(5) Constitutional Law and History, during a course of not less than eighty lectures.
(6) Conveyancing, during a course of not less than eighty lectures ; or Political Economy, or Mercantile Law, during a course of not less than eighty lectures.
(7) Any two of the following subjects, namely :—International Private Law, Political Economy, Administrative Law, and Forensic Medicine ; in each case during a course of not less than forty lectures.

III. (1) The course of study necessary for the Degree of Bachelor of Laws shall extend over three academical years, one of which at least must be spent in the University in which the Candidate intends to graduate, the other two may have been spent in any other University or School of Law, specially recognised by the University Court.

(2) No Candidate for a Degree shall be deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

IV. Candidates must undergo examination in the subjects prescribed in Section II. hereof ; and they must pass at one examination in at least two of these subjects. Before presenting themselves in any subject the Candidates must have attended the requisite course of instruction in such subject. Candidates who have passed an examination for another degree in any of the said prescribed subjects in the same University may be exempted from examination in such subject or subjects, provided that the examiners are satisfied that the previous examination in such subject or subjects has been passed on a sufficiently high standard.

V. Every Candidate for the Degree of Bachelor of Laws shall be examined both orally and in writing on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

[1] The following Degrees have been recognised in terms of this Section: B.A. of New Zealand University ; B.A. of Cape of Good Hope University ; B.A. of Dalhousie University, Halifax, Nova Scotia.

[2] For names of authorised extra-academical lecturers, *see* page 593.

VI. (1) Distinction may be awarded to Candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Laws a diploma shall be given, setting forth the subjects in which the Candidate has passed, and the distinction (if any) he has attained.

VII. The Examiners shall be the Professors of or Lecturers on the subjects included in the said examinations, and additional Examiners appointed by the University Court. The mode of conducting the examination shall be fixed from time to time by the Senatus Academicus.

VIII. Every student who at the time when this Ordinance shall come into operation shall have completed a part of his course with a view to Graduation as Bachelor of Laws in any Scottish University, under Regulations hitherto in force in that University, and shall thereafter complete his course of study in conformity with such Regulations, may become a Candidate for the Degree of Bachelor of Laws without complying with the provisions of this Ordinance.

IX. Ordinance numbered 75 of the Commissioners under the Universities (Scotland) Act, 1858, is hereby repealed, in so far as it is inconsistent with this Ordinance.

X. This Ordinance shall come into force at the beginning of the first academical year (1st October 1894) after the date on which it is approved by Her Majesty in Council.

II. REGULATIONS FOR THE DEGREE OF BACHELOR OF LAW (B.L.).

(Applicable to all who begin their Law Studies after 1st October 1894.)

I. No one shall be admitted to examination as a candidate for the degree of Bachelor of Law (B.L.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom, or of any Foreign or Colonial University specially recognised for the purpose by the University Court; or until he shall have passed—

A. The Preliminary Examination in the Faculty of Arts,[1] or its equivalent, and

B. An examination in one of the Scottish Universities, to be conducted by the Examiners in Arts, in the following subjects, on the Standard of Examination for the Ordinary Degree of Master of Arts :—

(1)[2] Logic and Psychology; or, in the option of the candidate, Moral Philosophy.

(2)[2] Latin.

(3)[2] One additional Arts subject, not being one of those which belong also to the Faculty of Law.

[1] See Time-Table, pages 132-134.

[2] The date of the examination is the same as in the corresponding subject for the degree of M.A.

And he must have studied at least one of these subjects in a full course in a Scottish University, or an equivalent course in another University approved by the University Court.

II. The course of study in Law necessary for the degree of Bachelor of Law shall include the following subjects :—

1. Civil Law, during a course of not less than eighty lectures ; or a half-course in Civil Law where in any University a full course is not available ; provided that in the latter case, candidates who are not already graduates in Arts shall be required to take in addition a course in such subject in Arts as may be sanctioned by the Senatus Academicus, or a half-course in one or other of the following branches of Law :—

(*a*) Jurisprudence, General or Comparative.
(*b*) The Law of Nations, or Public International Law.
(*c*) Constitutional Law and History.
(*d*) International Private Law.
(*e*) Mercantile Law.
(*f*) Administrative Law.

2. Law of Scotland, during a course of not less than eighty lectures.
3. Conveyancing, during a course of not less than eighty lectures.
4. Forensic Medicine, during a course of not less than forty meetings of the class ; or, in the option of the candidate, a half-course in one of the branches of Law specified in sub-section 1 of this section, if not already taken.

III. (1) The course of study in Law necessary for the Degree of Bachelor of Law shall extend over two Academical years.

(2) No candidate for a degree shall be deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

(3) The candidate may prosecute his studies during the prescribed two years in one Scottish University, or in different Scottish Universities, or in a Scottish University and a University or School of Law specially recognised by the University Court ; but one at least of these years must have been spent, and all the examinations in the subjects mentioned in the preceding section must have been passed, at the University in which he intends to graduate.

IV. The candidate for the Degree of Bachelor of Law must undergo examination and pass in the four or more subjects selected by him ; but he may present himself for examination in one subject or group of subjects at a time, provided that he has completed the course of study for such subject or group of subjects, and provided also that in that case a higher standard of proficiency shall be exacted.

V. Every candidate for the Degree of Bachelor of Law shall be examined, both orally and in writing, on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Law a diploma shall be given, setting forth the subjects in which the candidate has passed, and the distinction (if any) he has attained.

VII. The examiners shall be the professors of and lecturers on the subjects included in the said examinations, and additional examiners appointed by the University Court. The mode of conducting the examination shall be fixed from time to time by the Senatus Academicus.

VIII. Every student who at the time when this Ordinance shall come into operation shall have completed a part of his course with a view to graduation as a Bachelor of Law in any Scottish University under regulations hitherto in force in that University, and shall thereafter complete his course of study in conformity with such regulations, may become a candidate for the Degree of Bachelor of Law without complying with the provisions of this Ordinance.

IX. Ordinance numbered 75 of the Commissioners under the Universities (Scotland) Act, 1858, is hereby repealed, in so far as it is inconsistent with this Ordinance.

X. This Ordinance shall come into force at the beginning of the first Academical year (1st October 1894) after the date on which it is approved by Her Majesty in Council.

EXAMINATIONS.

I. Preliminary Examination for B.L.[1]

A Fee of 10s. 6d. is payable for each appearance at the Preliminary Examination.[2]

A.—For subjects on the M.A. Preliminary Standard, see page 128, Time Table of Examinations, page 132.

B.—For subjects on Standard of Ordinary Degree of M.A., see page 139, Time Table of Examination, page 137.

II. Law Examinations (for Degrees of LL.B. and B.L.).[1,2]

Subjects for October 1894 (*and till further notice*).[3]

In Public Law the subjects will be *The Philosophy of Law* and *Public International Law*. The books recommended for study are mentioned in the Synopsis of the Professor's Lectures.

[1] Names to be given in, Certificates shown, and Fees paid, on or before 21st September and 20th March, for the Autumn and Spring Examinations respectively.

[2] If names are not entered, and fees are not paid, on or before the stated dates, a late entry-fee of ten shillings must be paid before the Candidate can be admitted to examination.

[3] Examination papers will also be set in the additional subjects prescribed by the New Ordinances if required.

In CIVIL LAW the examination for both degrees will be on the History of the Law of Rome, and on its Principles as explained in the Institutes of Gaius and Justinian. Candidates for LL.B. will also be examined on Book xviii., tit. i. (*De contrahenda emptione*) and Book xli., tit. i. (*de acquirendo rerum dominio*), of the Digest. The works of Professor Muirhead are recommended to candidates.

In CONSTITUTIONAL LAW AND HISTORY the subject will be—The Constitutional Law and History of England, down to the first Reform Act. The principal text-books are the works of Stubbs, Hallam, and May. See also Synopsis of the Professor's Lectures in the CALENDAR.

In the LAW OF SCOTLAND the subject will be the Municipal Civil Law. The works of Mr Erskine and Mr G. J. Bell in the latest editions are recommended to candidates.

In CONVEYANCING the subject of Examination will be Redeemable Heritable Rights and Moveable Rights, including Arbitration and Cautioner's Law.

In MEDICAL JURISPRUDENCE the subjects will be—(1) Narcotic Poisons; (2) Wounds; (3) Infanticide; (4) Death from Asphyxia; (5) Criminal Responsibility.

In POLITICAL ECONOMY[1] the Examination will be on the subjects treated of in Mr J. S. Mill's "Principles of Political Economy." Candidates will also be expected to show some knowledge of the works of the recent writers mentioned in the Synopsis of the Professor's Lectures.

FEES.[2]

NEW REGULATIONS.

1. The fee payable for LL.B. is £6 6 0

or

If the Examination be taken at two or more periods—
For the First, ... £3 3 0
For the Second, ... 3 3 0

2. The fee payable for B.L. is £5 5 0

or

If the Examination be taken at two or more periods—
For the First, ... £3 3 0
For the Second, ... 2 2 0

3. Candidates who fail to pass in one or more of the subjects of Examination, pay a fee of 10s. 6d. for each subject in which they are re-admitted to Examination.

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[1] Optional for LL.B. under the Old Regulations instead of Conveyancing; but see *supra* footnotes, page 509.

[2] See footnote 2, page 503, and page 512.

B.—OLD REGULATIONS FOR DEGREES IN LAW.

(APPLICABLE TO ALL WHO BEGAN THE STUDY OF LAW, WITH A VIEW TO GRADUATION, BEFORE 1ST OCTOBER 1894.)

Candidates for the Degree of LL.B. must be graduates in Arts of a Scottish, English, or Irish University, or of some other University approved of by the University Court.[1]

Candidates for the Degree of B.L., not graduates in Arts, must have attended at least one Arts class during one academic year in a British, Irish, or other recognised University, and must pass a Preliminary Examination in general knowledge according to the Regulations after stated.

The Degree of Bachelor of Laws was instituted by an Ordinance of the Universities' Commissioners, of 12th July 1862. The Degree of Bachelor of Law (B.L.) was instituted by the University, and approved by Her Majesty by Order in Council, dated 6th August 1874.

DEGREE OF BACHELOR OF LAWS (LL.B.).

The rules of the Ordinance, as amended by an Order in Council of 11th August 1884, are—

I. No one shall hereafter be admitted as a candidate for the Degree of Bachelor of Laws (LL.B.) . . . unless he be a Graduate in Arts of one of the Universities of Scotland, or of England or Ireland, or a Graduate in Arts of a colonial[1] or foreign University, whose Degree may, for this purpose, have been specially recognised by the University Court.

II. The Course of Study in Law necessary for the Degree of Bachelor of Laws shall extend over three Academical years, and shall include attendance on a Distinct Course in each of the six following Departments, viz.:—

1. CIVIL LAW.....	During Courses of not less than Eighty Lectures each.
2. LAW OF SCOTLAND.....	
3. CONVEYANCING, or, in the option of the Candidate, POLITICAL ECONOMY[2]	
4. PUBLIC LAW.....	During Courses of not less than Forty Lectures each.
5. CONSTITUTIONAL LAW and HISTORY	
6. MEDICAL JURISPRUDENCE [3].....	

[1] See footnote 1, p. 504.

[2] This option, initiated by the Faculty of Law, was approved by Her Majesty by Order in Council on 11th August 1884. Conveyancing, however, continues to be compulsory, both as to attendance and examination, for candidates who desire their LL.B. degree to qualify them for the profession of a law-agent; and it continues compulsory as to attendance for candidates for the Bar.

[3] See footnote 2, p. 504.

III. No one shall hereafter be admitted to Examination as a candidate for the Degree of Bachelor of Laws, until he has completed the course of study above prescribed; and no one shall be admitted as a candidate in any University unless two at least of the three Academical years of his course of study in Law shall have been in such University.

IV. Candidates for the Degree of Bachelor of Laws shall be examined, both in writing and *viva voce*, on each of the six Departments of Law above specified.

V. Each candidate must satisfy the Examiners that he possesses a competent knowledge of Law in each of the said Departments; and the Examiners shall further, in judging of the qualifications of candidates, have special regard to their acquirements in the two Departments of Public Law and Constitutional Law and History.

* * * * * * * *

IX. Each candidate for the Degree of Bachelor of Laws shall pay a Fee of Five Guineas in respect of his Examination for the Degree.[1]

Degree of Bachelor of Law (B.L.).

The Rules of the Order in Council of 6th August 1874 sanctioning the Degree of B.L., are as follows:—

XII. No one shall be admitted to Examination as a Candidate for the Degree of Bachelor of Law in the University of Edinburgh, unless he be a Graduate in Arts, qualified as prescribed in Section I. (of the Regulations for LL.B.), or unless he shall have studied in one of the Universities therein mentioned, during at least one Academical year, one or more of the subjects included in the course of Study in the Faculty of Arts, and shall have passed a satisfactory Examination in (1.) Latin, (2.) Greek, French, or German, and (3.) any two of the following subjects—namely, Logic, Moral Philosophy, and Mathematics. The Examinations shall be conducted by Examiners in Arts, together with some of the Law Examiners.[2]

XIII. The course of study in Law necessary for the Degree of Bachelor of Law in the University of Edinburgh shall extend over at least two Academical years, and shall include attendance on a distinct course, as specified in Section II. (of the Regulations for LL.B.), in each of the first three of the Departments therein mentioned,[3] and in any one of the other three Departments; and no one shall be admitted to Examination as a Candidate for the said Degree, unless two Academical

[1] If the Examination is taken in two or more parts, the fee for the first is £3, 3s., and for the second, £2, 2s., no fee being payable in respect of any Examination after the second.—Every Candidate for a Degree in Law must matriculate at the University for the year in which he appears for Examination or for Graduation. He must enter his name for graduation, and if not already a member of the General Council, must also pay the fee of £1 for Registration at least two clear days before the date of graduation.

[2] Candidates must pass in these subjects at the Ordinary Examinations for the Degree of M.A. in October and April (*see* Regulations for Graduation in Arts).

[3] Viz., Civil Law, Scots Law, and Conveyancing: the option of Political Economy not applying to the B.L. degree.

years of his course of Study in Law shall have been in the University of Edinburgh.

XIV. The Examination for the said Degree of Bachelor of Law in the University of Edinburgh shall be conducted at the same time, and in the same manner, as that for the Degree of Bachelor of Laws, and the Candidates shall be examined in each of the Departments of Law on which they shall have given attendance, as above required.

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XVI. The Fee to be paid by each Candidate for the Degree of Bachelor of Law in the University of Edinburgh shall be the same as is provided by Section IX., with reference to Examinations for the Degree of Bachelor of Laws.[1]

SUBJECTS OF EXAMINATION (OLD REGULATIONS).

Preliminary Examination for Degree of B.L.[2]

The following Books are prescribed for French and German:—

French.—*Montesquieu's* Esprit des Lois, Books xi. to xiii. *Voltaire's* Charles XII. *Molière's* L'Avare. *Victor Hugo:* First Division of Selections ('Poésie') contained in L'Œuvre Complète de Victor Hugo (Extraits); Paris, Hetzel-Quantin, 1885. Some knowledge of the matter of the books prescribed as well as of their text is required. A passage from a work not prescribed may also be set. Moderate proficiency in French prose composition is required. Questions on French Grammar, Philology, and History will also be set. For these subjects reference may be made to *Saintsbury's* Primer of French Literature, to *Brachet's* Historical French Grammar, or *Clapin's* Primer of French Philology, and to *Charlotte Yonge's* Primer of French History.

German.—*Von Jhering*, Der Kampf um's Recht. *Lessing* Minna von Barnhelm. *Goethe*, Hermann und Dorothea, Cantos I. and II. *Schiller*, Die Glocke. *E. J. A. Hoffmann*, Meister Martin (Lange's German Classics). Translation, composition, and some grammatical and historical knowledge will be required, as in French. Reference may be made to *Ravensberg's* German Grammar, *Selss's* Outline of the Literature of Germany, and *Sime's* History of Germany (Macmillan's Hist. Course for Schools).

Law Examinations (for Degrees of LL.B. and B.L.).

For subjects for October 1894 (*and till further notice*), *see page* 507.

[1] For Preliminary Examination in Arts, £1, 1s.; for First Examination in Law, £2, 2s.; for Second Examination in Law, £2, 2s. Under the Old Regulations no fee is payable in respect of any Examination after the Second Examination in Law.

[2] For Candidates who have passed in some of the Preliminary Subjects, or who have attended Classes before October 1894, with a view to graduating as Bachelors of Law. After October 1894 the ordinary M.A. subjects in French and German will take the place of those above enumerated.

DATES OF EXAMINATIONS.

Preliminary Examination for B.L.[1] (Old Regulations).

1894.

October 2, Tu. Names to be given in and fees paid *on or before* this date.
,, 9, Tu. Latin—2.30-4.30.
,, 10, Wed. Latin—9-11; Greek, French, and German, 11.30-1.30, and 2.30-4.30.
,, 11, Th. Mathematics—9-11, and 11.30-1.30.
,, 12, Fri. Logic—11.30-1.30, and 2.30-4.30.
,, 13, Sat. Moral Philosophy—9-11 and 11.30-1.30.

1895.

March 15, Fri. Names to be given in and fees paid *on or before* this date.
April 1, Mon. Logic—3-5.
,, 2, Tu. Latin—9-11 and 11.30-1.30.
,, ,, Logic—3-5.
,, 3, Wed. Greek, French, and German—9-11, 11.30-1.30; Mathematics, 3-5.
,, 4, Th. Mathematics—9-11.
,, ,, Moral Philosophy, 11.30-1.30, 3-5.
,, 6, Sat. French—11.30-1.30, 3-5.
,, 8, Mon. German—9-11, 11.30-1.30.

Law Examinations[1] for LL.B. and B.L. under New and Old Regulations.

1894.

October 22, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 29, ,, Scots Law—10; Constitutional Law and History, 3.
,, 30, Tu. Civil Law—10; Constitutional Law and History, 3.
,, 31, Wed. Conveyancing—10; Political Economy, 10; Medical Jurisprudence, 3.

1894.

Nov. 1, Th. Public Law—10.
,, 5, Mon. Oral Examinations begin.

1895.

July 1, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 8, ,, Scots Law—9; Constitutional Law and History, 2.
,, 9, Tu. Civil Law—9; Constitutional Law and History, 2.
,, 10, Wed. Conveyancing, 9; Political Economy, 9; Medical Jurisprudence, 2.
,, 11, Th. Public Law, 10.
,, 15, Mon. Oral Examinations begin.

[1] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination.

Examination Papers for Degrees in Law.

B.L. PRELIMINARY EXAMINATION.

FRENCH.

FIRST PAPER.—11.30 *to* 1.30 *o'clock.*

Translate, and answer questions on any three of the following passages:—

I. Montesquieu, *L' Esprit des Lois*, xi. 15, *from* "Dans le feu des disputes entre les patriciens et les plébéiens," *to* "elle fut étonnée du pouvoir qu'elle avait donné."

1. Account for the *l'* before *on* etymologically, and state in what cases it is so used.
2. Give plural of *donnât, acquiesça, exerçait.*
3. *Afin que.* Give five other conjunctions which govern the subjunctive.
4. Account for (*après bien*) *des résistances.*
5. *À des partis.* Account for the article; and state what difference it would make if *de* were substituted for *à.*
6. *L'une leur donnait.* Give the singular of *leur.*

II. Voltaire, *Charles XII.*, book ii., *from* "En attendant, il se posta à quelques milles de la ville," *to* "sur la place même que le roi quittait à peine."

1. *En attendant.* How is an English preposition with a verbal noun usually rendered into French?
2. When is *quelque* invariable?
3. Give plural of *à laquelle, d'un habit bleu, derrière lui, lui était naturelle.*
4. Give 3rd plural present, past definite and future of *craignit, aperçu, faisait, devait, prend, venait.*
5. Give singular of *ceux*, and plural of *auprès de lui.*
7. Why not *quelle que*?

III. Molière, *L'Avare*, II. 6, *from* "Mais, Frosine, as-tu entretenu la mère touchant le bien qu'elle peut donner à sa fille?" *to* "ne voilà-t-il pas par année vos douze mille francs bien comptés?"

1. Give 3rd singular and plural, past definite and future of *entretenu, peut, fallait, fit.*
2. *Douze mille*,—why not milles? What other numerals remain unchanged in certain cases?

3. Give 3rd plural present, past definite and future of *va*, *vaut*, *sais*, *prenons*, *mettons*.
4. What difference is there between *tout an* and *toute l'année*?
5. State rule as to plural of nouns in *ou*, with exceptions.
6. *N'en prenons rien que le quart.* Put this positively (let us take a fourth of it).

IV. Victor Hugo, *Extraits* (*Les Chatiments*, iv.), *from* "O noirs événements, vous fuyez dans la nuit!" *to* "Ou le consul de marbre au l'empereur d'airain!"

1. *Alla.* Give 2nd person singular and plural present, past definite, past indefinite, future, and imperative.
2. *s'éprirent.* Give 3rd singular and plural of present subjunctive, and imperfect subjunctive.
3. Why not *marquant*? When is this verb-form changeable?
4. *levait.* Give 3rd singular and plural present, past definite, and future.
5. *Se souvint.* Give 2nd singular and plural of pluperfect and imperfect, both positively and negatively.

SECOND PAPER.—2.30 *to* 4.30 *o'clock.*

I. Translate into French:—

At Bender, Charles had all things in abundance, which seldom happens to a conquered and fugitive prince; for, besides the more than sufficient quantity of provisions, and the five hundred crowns a-day which he received from the Ottoman munificence, he still drew some money from France, and borrowed (emprunter) of the merchants at Constantinople. Part of this money was employed in forwarding (managing) intrigues in the seraglio, in buying the favour of the viziers, or procuring their ruin. The rest he squandered with great profusion among his officers and the janissaries who composed his Guards at Bender. Grothusen, his favourite and treasurer, was the dispenser of these liberalities; he was a man who, contrary to the custom of persons in his place, was as fond of giving as his master. He once brought him an account of sixty thousand crowns in two lines: "Ten thousand crowns given to the Swedes and janissaries by the generous orders of his Majesty, and the rest eaten up by myself." "It is thus," said the king, "that I would have my friends give in their accounts. Mullan makes me read whole pages for the sum of ten thousand francs. I like the laconic style of Grothusen much better." One of his old officers, who was suspected of being somewhat avaricious, complained that his Majesty gave all to Grothusen. "I give money," replied the king, "to none but those who know how to use it."

II. 1. State what you know of any three of the following men :—Kleber, Du Guesclin, Turenne, Colbert, Lamartine, Madame de Maintenon.

2. State under what circumstances any three of the following battles were fought :—Austerlitz, Pavia, Fontenoy, St Quentin, Leipzig.

III. Give the etymology of *oui*, *jamais*, *déjeuner*, *car*, *demain*, *après*.

FIRST PAPER.

April 1894.—*Time—Two hours.*

Translate into English, and answer the questions on, any three of the following four passages :—

I. Montesquieu, *L'Esprit des Lois*, xiii. 8, *from* "Pour que le prix des choses," *to* "pour l'ordinaire d'un prix très-vil."

1. *Puissent*, *ait*, account for the mood ; and give five conjunctions which require this mood.
2. *Peu de valeur*, mention five other adverbs of quantity requiring *de* after them ; and one that requires the full partitive article.
3. *Mette*, *excède*, *voient*, *conduits*, *fait*, 1st sing. and plur. present, past definite and future.
4. What different meanings attach to *leur ?*
5. State the difference between *ailleurs* and *d'ailleurs*. What is the etymology of the former word ?
6. *Lui-même*, give the plural ; also the feminine, singular and plural.
7. *Puisse*, *aller*, *acheter*, *devient*, 3rd plur. present, imperfect, past definite, past indefinite and future.

II. Voltaire, *Charles XII.*, livre iii., *from* "Voici le nœud secret de cet événement," *to* "comme une trahison."

1. *Secret*, *vif*, *altier*, *favori*, *impérieux*, give the feminine of these.
2. *Le maréchal de Saxe*, *fils*, why not *le fils ?*
3. *En Suède*, what other prepositions may be used with names of countries, and in what cases ?
4. *Dont*, what would you use instead of this, and in what cases must you do so ?
5. When is *quelque* variable ; and what is the difference between it and *quel que ?*
6. *Prévenir*, *obtint*, *dit*, *servi*, *rendu*, 3rd plur. present, imperfect, past definite, future ; imperfect subjunctive.
7. *Tous deux*, what could you say instead of this ? Give the feminine.

III. Molière, *L'Avare*, iii. 5, *from* "Monsieur, puisque vous le voulez," *to* "et de fesse-mathieu."

1. *Cent brocards*, why not *cents?* Give rule.
2. Account for the *l'* in *l'on*.
3. When do you put *afin de*, and when *afin que?* Give three similar pairs of conjunctions.
4. *Jeûnes*, account for the circumflex, and give three other examples of words merely distinguished by a circumflex from other words.
5. *Toute prête*, give the rule regarding this use of *tout*, and the form it assumes in different cases.
6. *Mangé*, *venant*, *sais*, *voulûtes*, *saurait*, 3rd sing. and plur. present, past definite and future.

IV. Victor Hugo, *Estraits: La Conscience*, *from* "Lorsque avec ses enfants," *to* "sinistre dans l'espace."

1. *Se fuit enfui*, 3rd sing. and plur. present, past definite, past indefinite and future past.
2. *Dirent*, *dormant*, *songeait*, *levé*, *vit*, 2nd sing. and plur. present, past definite and future.
3. *Cieux*, give the singular. Is there any other plural?
4. *Oeil*, give plural or plurals.
5. *Tout grand ouvert*, state the rule regarding this use of *tout*, and the form it assumes in different cases.
6. Account for the form of *dormant*.

SECOND PAPER.

Thursday, 5th April 1894.—3 *to* 5 *o'clock.*

I. Translate into French :—

The emperor, elated with joy, received on the field of battle the prisoners whom they brought to him in crowds, and asked every moment, "Where, then, is my brother Charles?" He did the Swedish generals the honour of inviting them to dine with him. Among other questions which he put to them, he asked General Renschild, what might be the number of his master's troops before the battle. Renschild answered that the king always kept the muster-roll (say, list) himself, and would never show it to any one; but that, for his own part, he imagined the whole might be about thirty thousand, of which eighteen thousand were Swedes, and the rest Cossacks. The Czar seemed to be surprised, and asked how they durst venture to penetrate into so distant a country, and lay siege to Pultawa with so few men. "We were not always consulted," replied the Swedish general, "but, like faithful servants, we obeyed our master's orders, without ever contradicting them." The Czar, on receiving this answer, turned round to some of his courtiers who were formerly suspected of having engaged in a con-

spiracy against him: "Ah," he said, "see how a king should be served;" and then, taking a glass of wine, he said, "To the health of my masters in the art of war!"

II. 1. Give some account of the principal events in the reign of Louis XV.

2. State what you know of—the Committee of Public Safety, the Mountain, and the Girondins.

3. Give the etymology of any ten of the following words—bonheur, oie, soir, jeter, blanc, rouge, prêt, vert, canif, cher, droit, alarmer, jamais, ne-pas, ne-point, oui.

EXAMINATION PAPERS FOR LL.B. AND B.L.

SCOTS LAW.

Monday, 3rd July 1893.—10 *to* 2 *o'clock.*

(*Three Questions only in each group to be answered.*)

I.

1. Describe briefly the operation of the subsisting Presumption of Life Act.

2. Trace the history, and describe the present state, of the law of divorce for desertion.

3. Explain the reciprocal rights and duties as to aliment between a bastard and his parents. What is the law of succession to a bastard's estate?

4. What are the safeguards against wrongous enclosure in a lunatic asylum?

II.

1. What is a servitude? How are servitudes acquired and extinguished?

2. In the law of wrongs, expound the meaning of the following pleas:—(1) *volenti non fit injuria;* (2) seen danger; (3) contributory negligence?

3. What rules obtain in regard to property in trade fixtures—(*a*) as between heir and executor, and (*b*) as between landlord and tenant?

4. How are letters patent for inventions obtained?

III.

1. What is necessary to the completion of a consensual contract? Illustrate from the case of parties at a distance from each other.

2. What are the rules regarding liability arising from collision of ships; and what limitations are set up by statute?

3. In what cases is there an implied warranty of quality or condition in a sale of goods?

4. When and how far does a transfer of shares in a joint-stock company free the transferrer from liability for payment of future calls?

IV.

1. Explain the operation of the sexennial prescription. If, in defence to an action brought in Scotland to enforce a debt incurred elsewhere, it is pleaded that the debt is prescribed by the *lex loci contractus*, how is such a plea dealt with?

2. Enumerate the diligences by which a creditor may attach and realise (*a*) the moveable and (*b*) the heritable estate of his debtor. Explain the nature of any one of them.

3. What are (*a*) resulting and (*b*) constructive trusts.

4. Distinguish between *spes successionis*, *spes successionis in obligatione*, and *jus crediti*.

CONSTITUTIONAL LAW AND HISTORY.

FIRST PAPER.

Monday, 3rd July 1893.—3 *to* 5 *o'clock.*

(*Five Questions only to be answered.*)

1. Who was the statutory heir to the English Crown on the death of Queen Elizabeth? How came the Crowns of England and Scotland to be united? Discuss the effects of that union.

2. State briefly each side of the case in the contest between Crown and Commons as at the date of the Grand Remonstrance.

3. *Either* explain and discuss the chief constitutional questions at issue between Crown and Parliament in the reigns of Charles II. and James II.; *or*, name and discuss the chief constitutional Statutes of that period.

4. Contrast kingship under the Stuarts with the kingship of the Revolution (1688-89).

5. How far did religious liberty exist before the Toleration Act of 1689, and how far was it extended by that Act?

6. Sketch and explain the decline of the royal prerogative under the first two Georges.

7. Sketch and explain the growth of the royal prerogative under George III.

8. State and discuss the chief causes of the American Revolution (1775).

9. What disabilities were removed (*a*) by the repeal of the Corporation and Test Acts (1828), and (*b*) by Catholic Emancipation (1829)?

SECOND PAPER.

Tuesday, 4th July 1893.—3 *to* 5 *o'clock.*

(*Five Questions only to be answered.*)

1. On what model and with what object was the Parliament of 1295 constituted? When did the House of Commons first distinctly take shape, and what were its powers?

2. Explain the nature of an impeachment. When did impeachments originate? Contrast them with attainders.

3. "Petitions to be converted into statutes without alteration" (1414). Explain and discuss.

4. Contrast the conduct of the Commons during the Lancastrian period with their attitude under the Yorkists. Account for the difference.

5. In what respects did (*a*) Henry VIII. and (*b*) Elizabeth recognise and support the powers and privileges of Parliament?

6. Name and give the substance of those manifestoes of the Commons under James I. and Charles I. which formed the programme of the Constitutional party.

7. Explain and discuss the question of "placemen" in Parliament, especially between 1705 and 1782.

8. State and discuss briefly any four of the cases of—Haxey, Thorpe, Yonge, Strode, Ferrers, Sir John Eliot, the Aylesbury Election.

9. Describe in outline the powers and privileges of Parliament at the present day.

ROMAN LAW.

Tuesday, 4th July 1893.—10 *to* 2 *o'clock.*

Candidates for LL.B., or for B.L. on the LL.B. standard, are expected to answer five of the questions in Group I., and three in each of the other Groups.

Candidates for B.L., not aiming at the LL.B. standard, are expected to answer two of the questions in Group I., and three in each of Groups II., III., and IV., but need not answer any in Group V.

Group I.

1. Give a short account of the Twelve Tables.

2. Ubi autem diversae sententiae proferuntur potior numerus vincat auctorum, vel si numerus aequalis sit, ejus partis praecedat auctoritas, in qua excellentis ingenii vir Papinianus emineat, qui ut singulos vincit, ita cedit duobus. Translate and explain. Who are the *auctores* referred to? State what you know about Papinian's life and work.

3. Give a brief account of the development of the praetorian edict. What was the Edictum Julianum? Have any attempts been made to restore it in modern times?

4. Explain the nature of *in jure cessio.* For what purposes was it employed?

5. What is meant by *conubium*? Explain *erroris causae probatio.*

6. Who were Junian Latins? How might they become citizens?

7. What is meant by the phrase *nudum jus Quiritium*? How might a bonitarian owner sue, and how might his right be changed into *plenum dominium*?

Group II.

1. Explain *arrogatio* of a pupil in the time of Justinian.

2. Define Tutory. What was the effect of the testamentary appointment of a slave as a tutor? Could a mother be so appointed tutrix to her children?

3. (*a*) How was property in game acquired? (*b*) What was the law of treasure trove as fixed by Hadrian?

4. Explain *emphyteusis.*

Group III.

1. What was the *testamentum septem signis signatum*?

2. What was the *beneficium inventarii*?

3. How was a testator's freedom to dispose of his estate in legacies restricted?

4. How was an obligation contracted *verbis*? To what actions might it give rise?

Group IV.

1. What were the remedies of a buyer (*a*) if latent fault was discovered in the goods; (*b*) if he were evicted by the real *dominus*?

2. What is meant by *injuria* as a legal term? To whom was the *actio injuriarum* competent?

3. What was an *actio exercitoria*? How did it differ from an *actio de peculio et in rem verso*?

4. What were he interdicts *quorum bonorum Salvianum*, and *unde vi* respectively?

Group V.

Translate and comment on :—

1 D. xviii., 1, fr. 8. Nec emptio nec venditio sine re quae veneat potest intellegi, et tamen fructus et partus futuri recte ementur, ut cum editus esset partus, jam tunc, cum contractum esset negotium, venditio facta intellegatur : sed si id egerit venditor, ne nascatur aut fiant, ex empto agi posse. Aliquando tamen et sine re venditio intelligitur, veluti cum quasi alea emitur quod fit cum captum piscium vel avium

vel missilium emitur: emptio enim contrahitur etiam si nihil inciderit, quia spei emptio est.

2. D. xviii., 1, fr. 68 pr. Si, cum fundum venderes, in lege dixisses, quod mercedis nomine a conductore exegisses, id emptori accessurum esse, existimo te in exigendo non solum bonam fidem, sed etiam diligentiam praestare debere, id est non solum ut a te dolus malus absit, sed etiam ut culpa.

3. D. xli., 1, fr. 9, § 8. Alia causa est earum rerum, quae in tempestate maris levandae navis causa ejiciuntur: hae enim dominorum permanent, quia non eo animo ejiciuntur, quod quis eas habere non vult, sed quo magis cum ipsa nave periculum maris effugiat qua de causa si quis eas fluctibus expulsas vel etiam in ipso mari nanctus lucrandi animo abstulerit, furtum committit.

Alternatively to 3.

D. xlv., 1, fr. 5. Stipulationum aliae judiciales sunt, aliae praetoriae, aliae conventionales, aliae communes praetoriae et judiciales. Judiciales sunt dumtaxat, quae a mero judicis officio proficiscuntur, veluti de dolo cautio: praetoriae, quae a mero praetoris officio proficiscuntur, veluti damni infecti. Praetorias autem stipulationes sic audiri oportet, ut in eis contineantur etiam aediliciae: nam et hae ab jurisdictione veniunt. Conventionales sunt, quae ex conventione reorum fiunt, quarum totidem genera sunt, quot paene dixerim rerum contrahendarum: nam et ob ipsam verborum obligationem fiunt et pendent ex negotio contracto.

CONVEYANCING.

Wednesday, 5th July 1893.—10 *to* 2 *o'clock.*

(*Any Twelve Questions to be answered.*)

1. Enumerate the clauses of the Feu Charter as in use before 1st October 1847.

2. What was the difference in form between a Feu Charter and a Feu Disposition? Give a reason for the difference.

3. What is the effect of irritating a Feu Right on the superior's claim for arrears of Feu Duty? Does the fact that the Feu Right is in shape a Feu Contract make any difference?

4. A. was infeft in feudal subjects in the year 1873. B., the last entered vassal, had, unknown to the superior, died in the year 1870. In 1891 the superior raised against A. the statutory action for payment of an untaxed casualty introduced by the Conveyancing Act, 1874. Upon what year's rent was the casualty calculable?

5. When were the Registers of Sasines established? What was the enactment which made registration practically compulsory?

6. Enumerate the clauses of the Disposition as in use at present.

Explain why the clauses of holding and of resignation have been dropped out.

7. What are the enactments of the Conveyancing Act as to the vesting of a personal right to lands in an heir by survivance?

8. State the changes made by the Conveyancing Act as to the period of the long positive prescription. Give the limitations upon these changes contained in the statute and established by decision.

9. Draw a Deed of strict Entail in its briefest modern form, and state the essentials for its completion.

10. State the circumstances in which it is still incompetent for the heir in possession of an Entailed Estate to present a Petition for power to record an Instrument of Disentail.

11. Explain the present position of the law as to charging an Entailed Estate with improvement expenditure.

12. Contrast the effect as regards the granter of a Trust-Disposition and Settlement and a Trust-Disposition for behoof of Creditors.

13. State the essentials of a real burden by reservation.

14. Draw an assignation of a Bond and Disposition in Security.

15. Give the contents, and explain the purposes, of a Search of Incumbrances.

MEDICAL JURISPRUDENCE.

Wednesday, 5th July 1893.—3 *to* 5 *o'clock.*

I.—*Corrosive Poison.*

A person throws at another a quantity of oil of vitriol:

a. Under what process of law would he be indicted for this offence?

b. What might be the result as regards—

1. The clothing;
2. The person of the assailed.

II.—*Wounds.*

A. kills B. by shooting him in the chest with a revolver.

The general evidence is contradictory, some witnesses maintaining that A. was in front of B. not more than a foot distant; others asserting that A. was behind B., and at least two yards away:

What medical evidence would you desire to produce in order to support one or other of these statements?

III.—*Infanticide.*

Explain the meaning of the terms *Maturity*, *Viability*, and *Live birth*, stating shortly the evidence by which each of these may be established.

IV.—*Hanging.*

What answer would you give to this question :—

Can a person have committed suicide by hanging when it is found that some part of the body rests on the floor?

How may this occur?

V.—*Testamentary Capacity.*

Under what circumstances might a person who was insane make a will which would be valid?

POLITICAL ECONOMY.

Wednesday, 5th July 1893.—10 *to* 2 *o'clock.*

(*Answer Twelve Questions only.*)

1. "Economics may be said to examine the machinery of society for directing its labour and distributing the produce thereof." Criticise this definition, and discuss the title of economics to be regarded as an independent science.

2. State and examine Mill's "fundamental propositions respecting capital."

3. What is meant by "Standard of Life" as compared with "Standard of Comfort": explain its connection with Malthus' theory of population: and discuss the difficulties of realizing a high standard under modern industrial conditions.

4. What is meant by Final Utility: how is it connected with Price: and how is the conception of assistance in assigning a precise meaning to the term Value.

5. Discuss the effect of trade-unionism on wages: and explain and criticise Mill's attitude to trade union organizations.

6. "In every case the landlord ultimately pays taxes on land." Criticise this proposition as applied to (*a*) agricultural, and (*b*) urban subjects.

7. State carefully the Law of Supply and Demand, and show how it is fundamental in economics.

8. Define accurately the terms Mint Price and Market Price of gold, and state under what circumstances they may differ.

9. Is an over-issue of convertible notes possible? Explain your answer.

10. Examine the principal effects of bounties on exports.

11. Examine the connections between a fall in the gold price of silver and the general levels of prices in gold-using and silver-using countries.

12. What are the generally recognised exceptions to the principle of *laisser-faire*?

13. "Dear labour is the great obstacle to the extension of British trade." Criticise and discuss the proposition, with special reference to the doctrine of *comparative cost.*

14. "General over-production is economically impossible." State the theoretical grounds of this proposition, and examine how far it is true practically.

15. Explain the various meanings in economics of the term Co-operation, and distinguish between and describe the chief forms of co-operative production.

PUBLIC LAW.

Thursday, 6th July 1893.—10 *to* 2 *o'clock.*

I. Philosophy of Law.

(*Three Questions in each of groups A and B will suffice.*)

A. Science of Natural Law.

1. "These having not the law, are a law unto themselves."—*St Paul.*

"All human laws are, properly speaking, declaratory."—*Burke.*

Explain and discuss these statements.

2. What is a "School of Jurisprudence"? Give a short account of the chief schools.

3. Point out the main defects in Greek conceptions of Justice.

(*Or alternatively*),

Examine the doctrine of Perfect and Imperfect Obligations.

4. What is the philosophical justification of the institution of Property? Criticise the various theories that have been advanced respecting the origin of Property.

5. In what sense does Justice imply equality?

B. Science of Positive Law.

1. What objections have been made to Austin's definition of a Positive Law? Do you consider them unanswerable?

2. What do the Analytical School mean by "Written" Law and "Unwritten" Law? Add any other meanings which those phrases have borne.

3. Where is Public Law placed in the classifications of Austin and Holland respectively? Whose classification do you prefer, and on what grounds?

4. Discuss "Custom" as a source of Law.

5. Explain carefully the following terms:—"Rights *in rem*": "Translative fact": "Intention": "Absolute Duty."

II. Public International Law.

(*Not more than Six Questions to be attempted.*)

1. "The Law of Nature is the foundation or rather the scaffolding upon which the modern science of International Law was built up by Gentili and Grotius."—*Holland.* Explain.

2. Consider in relation to modern International Law—
   (*a*) The authority of the Popes in the Middle Ages.
   (*b*) The Romano-German Empire.
   (*c*) Feudalism.

3. In what circumstances do claims for political Recognition now arise? Explain briefly the principles according to which, in the different circumstances, Recognition will be granted.

4. Distinguish between the various kinds of mi-souverain States. Give an example of each kind.

5. In what ways may a diplomatic mission be terminated? Is a State bound to recall a diplomatic agent when asked to do so by the Government of the State to which he is accredited?

6. What are the rights of a belligerent with respect to the property of enemy-subjects found within the belligerent's own state?

7. Discuss the various theories which have been advanced to explain the belligerent rights arising out of Military Occupation.

8. Write a brief historical account of the growth of the Law of Neutrality.

9. By what tests have the British Courts determined whether articles *ancipitis usus* are Contraband or not? What are the penalties for carrying Contraband?

Graduates in Law.[1]

DEGREE OF LL.B., 1889-1894.

1889.

David Anderson, M.A.
Claud Patrick Boswell, M.A.
Archibald Brown Campbell, M.A.
*Andrew Henderson Briggs Constable, M.A.
*Alistair Davidson, M.A.
*Matthew Robin Greenlees, M.A.
James Arthur Hope, M.A.
*William Hunter, M.A.
*Robert Bird Kerr, M.A.
Francis Kinloch, B.A.
*George Fleming Mathers, M.A.
*John Hepburn Millar, M.A.

[1] The names of all the Graduates in Law from the institution of the Degrees to 1888 will be found in the List of Graduates of the University, published in 1889, pp. 125-127. See also previous Calendars.

* Passed with distinction. "Distinction" was instituted in October 1885. Several of the Graduates of 1885-88 passed part of their Examinations before any record of distinction was preserved.

*Charles David Murray, M.A.
*Coventry Dick Peddie, M.A.
John Ritchie, M.A.
*Hamish Hay Stuart, M.A.
Arthur Moodie Thomas, M.A.
*Alexander Thomson, M.A.

1890.

*Duncan Mearns Abel, M.A.
*James Roberton Christie, M.A., LL.B. (Glasg.).
*William Scott Currie, M.A.
Edmund John Gunn, M.A.
Neil James Kennedy, B.A.
William James Kippen, B.A.
Lawrence M'Laren, M.A.
John Liddell Officer, M.A.
Alexander David Russell, M.A.
*William Thomson, M.A.

1891.

Andrew Brown, M.A.
Charles Walker Bruce, M.A.
Robt. Jeffrey Cunningham, M.A.
James Wright Forbes, M.A.
Henry William Gibson, M.A.
Alexander Gray, M.A.
William Gray, M.A.
*James Mercer Irvine, M.A., B.Sc.
*Erskine Dawson Jamieson, M.A.
*Thomas Johnston, M.A.
Robt. Carmichael Malcolm, M.A.
*Thomas Brash Morison, M.A.
C. Morrison, M.A.
*Andrew Fleming Smith, M.A.
James Robert Earl Monteith Smith, M.A.
Michael Smith, M.A.
*Robert Macaulay Smith, M.A.
Frederick Mills Spankie, M.A.
Alex. Arthur Granger-Stewart, M.A.
*Robert Moir Williamson, M.A.
John Buchanan Young, M.A.

1892.

James Barty, M.A.
William Brown, M.A.
*John Sproat Taylor Cameron, M.A.
*William Chree, M.A.
John Marr Davidson, M.A.
*James Grant, M.A.
Augustus Wallace M'Gregor, M.A.
Thomas John Millar, M.A.
Alexander John Raeburn, M.A.

13th April, 1893.

Thomas Sanderson Hepburn Burns, M.A.
*William Findlay, M.A.
John Peregrine Robertson White, M.A.

1st August.

George Haskell Boyd, M.A.
Louis Carr Hallard, M.A.
*William Ingram, M.A., D.Sc.
William Dormond Munro, M.A.
*Alexander Blairford Smith, M.A.
Thomas Callander Wade, M.A.

28th October.

*Robert Munro, M.A.

13th April 1894.

*Alexander Brown, M.A.
Ian MacIntyre, M.A.

DEGREE OF B.L.

1889.

*Robert Liddell Cockburn.
William Stowell Haldane.
John Lumsden Macpherson, M.A.
John Glover.
John James Waugh.

1890.

Duncan Cameron
Duncan Archibald Maccoll.
Robert Watson.

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* Passed with distinction. See note 2 on previous page.

1891.
John Scrymgeour Hepburn.
John Nisbet.
William Alexander Stewart.
Thomas Trotter.

28th January 1893.
Thomas Edward Taylor, M.A.

1st August.
John Romanes.

DEGREE OF DOCTOR OF LAWS (LL.D.).[1]

The Degree of Doctor of Laws is conferred *honoris causâ tantum*. It was first granted in 1695. Previously to 1751 it had been conferred on seven persons only. Since then more than 400 names, including some of the most distinguished in Europe, have been added to the list. The degree is not conferred in absence except in very special cases.

The following is a list of those upon whom the Degree of Doctor of Laws has been conferred in 1889-1894 : —[2]

1889.
[3] Sir Syed Ahmed Khan, Bahadûr, K.C.S.I.
J. E. T. Aitchison, C.I.E., M.D., F.R.S., &c.
[3 4] James D. Dana.
[3] Francis Day, C.I.E., &c.
[3] Hon. David Dudley Field.
[3 4] C. Gegenbaur.
[3 4] E. Haeckel.
[3] Rudolf von Jhering, Dr. Jur.
[3 4] E. E. Kummer.
William Mackintosh, M.A., Q.C.
[3 4] Konrad Maurer.
Maurice Paterson, B.A.
Richard Quain, M.D., F.R.S., &c.
[3] Rudolf von Roth, Ph.D.
[3 4] Barthélemy St. Hilaire.
[3 4] Jules Simon.
Whitley Stokes, C.S.I., C.I.E., D.C.L., &c.
[3 4] Geheimrath Heinrich von Sybel.
James Ward, M.A., D.Sc.
[3] William Dwight Whitney.
[3 4] B. Windscheid.

1890.
Sir Benjamin Baker, C.E.
Pierre Paul Leroy-Beaulieu.
Right Hon. Henry Chaplin, M.P.
Sir Dyce Duckworth, M.D.
Sir John Fowler, Bart., C.E.
[3] James Anthony Froude, M.A., LL.D.
Joseph H. Gilbert, M.A., Ph.D., LL.D., F.R.S.
William W. Goodwin, D.C.L.
James Hardy.
Sir John Kirk, M.D., G.C.M.G.
General Robert Maclagan, R.E.
John Marshall, M.A.
Right Hon. J. P. B. Robertson, M.P.
Frederic Seebohm, F.S.A.
[3] Emeritus-Professor C. Piazzi Smyth, F.R.A.S., &c.

* Passed with Distinction. See note 2 on page 525.

[1] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent Ceremonial, on giving at least a week's notice.

[2] The names of those who received the Degree prior to 1859 will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University of Edinburgh since its foundation," published in 1858, and of those who received the Degree from 1859 to 1888, both years included, in the List of Graduates published in 1889, and in previous Calendars.

[3] Conferred *in absentia*

[4] Tercentenary Graduates unable to be present in 1884.

H. M. Stanley.
Spencer Walpole.

1891.

Alexander Asher, Q.C., M.P., &c.
John Beddoe, M.D., F.R.S, &c., &c.
Major C. R. Conder, R.E., D.C.L.
Felix Dahn.
Alexander Campbell Fraser, D.C.L., LL.D.
Cunningham Geikie, D.D.
George Joachim Goschen, M.P.
Sir George Murray Humphry, M.D., F.R.S.
Colonel Sir Colin Campbell Scott Moncrieff, K.C.M.G., C.S.I.
Professor Simon Newcomb.
Sir Herbert Stanley Oakeley, M.A., Mus. Doc., LL.D., D.C.L.
John Johnstone Rogerson, B.A., LL.B.

1892.

Surgeon-General James Macnabb Cuningham, M.D., &c.
[1] Rev. C. V. A. Van Dyck, M.D., D.D.
Robert M. Ferguson, Ph.D., F.R.S.E.
Rt. Hon. Sir Edward Fry.
[1] Theodore Nöeldeke.
Dr Jakob Schipper.
Hon. Sir Charles Tupper, Bart., G.C.M.G., C.B., M.D.
Rev. Thomas Walker, M.A.
[1] Robert Boog Watson, B.A., F.R.S.E.

13th April 1893.

Sir I. Lowthian Bell, Bart., F.R.S.
Sir George Buchanan, M.D., F.R.S.
Alfred Marshall, M.A.
John Rhys, M.A.
Lieut.-Colonel Justin C. Ross, C.M.G.
Rev. Walter C. Smith, D.D.
Alexander Moody Stuart.
Ramsay Heatley Traquair, M.D., F.R.S.

1st August.

Geheimrath Professor Dr Arthur Auwers.
John Sutherland Black, M.A.
Right Hon. Sir Stuart Knill, Bart.
Henry Duncan Littlejohn, M.D., F.R.C.S. Edin.

18th November.

His Excellency General the Right Hon. Lord Roberts, of Candahar, G.C.B., G.C.I.E., V.C., R.A. (B.).

13th April 1894.

John Taylor Brown.
W. H. Gaskell, M.D., F.R.S., Lecturer on Physiology, University of Cambridge.
Henry Goudy, M.A., LL.B., Regius Professor of Civil Law, Oxford.
Charles B. Logan, W.S., Deputy Keeper of the Signet.
David Patrick, M.A., B.D.
Right Hon. James Alex. Russell, M.A., B.Sc., M.B., C.M., Lord Provost of Edinburgh.
George Wilson, M.A., M.D., Medical Officer of Health, Mid-Warwick.

[1] Conferred *in absentia*.

APPLICATIONS FOR SCHOLARSHIPS AND BURSARIES.

Candidates for a Vans Dunlop Scholarship must enter their names and addresses *at least a fortnight* before the date of examination, at the *Matriculation Office, University, Edinburgh*, and produce evidence that they are eligible. They are required to be matriculated students of the year in which the competition takes place.

Candidates for Bursaries, &c., must enter their names and addresses, and exhibit the necessary certificates, at the *Matriculation Office*, at least one week before the date of the competition.

The examination for first-year Bursaries is in Latin and Moral Philosophy. Applicants for the second and third year Grierson Bursaries and for the Cairns Bursary must apply on or before 15th October, and must state what distinctions they have attained in the Law Classes of the previous year.

Applications for grants from the William Dickson Travelling Fund must be lodged on or before 15th March.

Where the competition is open to "Graduates," their standing will be computed from the date of the Graduation Ceremonial immediately following the completion of their Law Examinations.

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1873	The Grierson Trustees.	£80 0 0	3	1	About £26 13 4	Senatus.
II.	1873	Geo. Cairns, Solicitor.	18 19 4	1	1	About 18 19 4	Senatus.
III.	1878	DrAndrew Thomson.	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.

I. There are three Grierson Bursaries, each of the value of £26, 13s. 4d. annually. Deserving students from the parishes of Crawford of Leadhills, applying to the Clerk of Senatus on or before the 1st day of

September, are entitled to preference, if they satisfy certain conditions;[1] and if the applicant is commencing his first Winter Session of the Law Curriculum he will be entitled to hold the Bursary for three years, provided "he prosecutes his studies with proper diligence."[1] The subjects of examination are Elementary Latin, English, and Arithmetic. See Outline of Subjects, pages 128 and 129, and Time-Table of Examinations, pages 132 and 133.

Failing preferential candidates, the Bursaries will be tenable for one year only, and will be awarded to candidates who have attended one year in the Faculty of Arts in some University, and have applied as above-mentioned to the Secretary of the Senatus. 1. In the case of those commencing their first Winter Session in Law, the award will be to the candidate who has passed highest in Latin and Moral Philosophy at the Arts Graduation examination in October. 2. In the case of candidates commencing their second Winter Session—to the most distinguished law-student of that standing, who, if not a Graduate in Arts, has passed satisfactorily in Latin and Moral Philosophy at the Arts Examination, either in October or earlier. 3. In the case of candidates commencing the third Winter Session of the Law Curriculum—to the most distinguished law-student of that standing who has passed satisfactorily in Latin, Moral Philosophy, and Logic at the Arts Examination in October or earlier. See Regulations, CALENDAR 1877-78, p. 370. *Bursars in* 1893—First year, *vacant.* Second year, *W. Rose Black.* Third year, *David Moffat* (Preferential Candidate).

II. The competition for the Cairns Bursary, which is tenable for one year only, and is not subject to any preferences, is subject to the same conditions as those for the second year Grierson Bursary. This Bursary is open to Students who have completed one year in the Law Faculty. *Bursar*—1893, *A. C. M. Bell, M.A.*

III. For the *Thomson Bursaries* application should be made to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, are preferred. The Examination is in Latin and Moral Philosophy, and is the same as the October Examinations in those subjects for M.A. See CALENDAR 1879-80, p. 345. *Bursars*—1890. *F. J. Thomson, M.A.* (Preferential Candidate). 1891, *Alexander M'Callum.* 1892, *Robert Macfie.* 1893, *James MacKenna.*

Bursaries in the Faculty of Arts, the holders of which may study in the Faculty of Law (see also under Faculty of Arts):—

[1] See CALENDAR 1877-78, p. 370. By "proper diligence" is understood regular attendance on Classes, and reasonable proficiency in Class Examinations.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1809	Dr Donald Grant, London.	£180 0 0 About	2	4	£90 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0	Principal and Two Professors.
III.	1871	The Sibbald Bursaries.	150 0 0	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
IV.	1883	Wm. Renton, Edinburgh.	19 19 6	1	1	19 19 6	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
V.	1886	R. Allan, Feuar, Kelso.	About 90 0 0	3	3	About 30 0 0	Trustees of R. Allan.
VI.	1889	Daniel MacLaurin, London.	70 0 0	1	4	70 0 0	Town Council.

II.—LAW SCHOLARSHIPS.

General Regulations for Vans Dunlop Scholarships.

Four Vans Dunlop Scholarships, each of about £100 per annum, tenable for three years, are more or less directly connected with the Faculty of Law:—

Candidates for Nos. I. and IV. must have regularly attended in at least one class in the University of Edinburgh during each Winter Session in which they claim to have been Matriculated Students; and no Candidate is eligible who has discontinued attendance at the University for more than one year.

Candidates for a Vans Dunlop Scholarship must enter their names and addresses *at least a fortnight* before the date of examination, at the *Matriculation Office, University, Edinburgh*, and produce evidence that they are eligible. They are required to be matriculated students of the year in which the competition takes place.

I. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, for which both Law and Arts Students are eligible. The Regulations for competition are as follows:—

(*a.*) Candidates are subject to an Examination testing their knowledge (1) of Commercial and Political Economy, and (2) of Mercantile Law—two papers on the former and one on the latter.

(*b.*) The Competition is open to all who have been Matriculated Students for not less than two years, and who have regularly attended the Class of Commercial and Political Economy and Mercantile Law.

(*c.*) The Professor of Political Economy and an Examiner appointed by the Senatus are the Examiners.

Next vacancy in November 1895.

Scholars—1891, No award.
1892, *Cameron Morrison*, LL.B. *Prox. access.*—*J. R. Christie*, LL.B.; *A. B. Clark*, M.A.

II. *Vans Dunlop Scholarship in the Law of Nature and Nations, Civil Law, and Constitutional Law and History.* The Regulations for competition are as follows:—

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in the three subjects of examination for the Scholarship: provided they have written papers of the LL.B. standard at the Graduation Examination, and have obtained an average of not less than 75 per cent. of marks in these subjects.

(*b.*) The Competition is by written Essays on branches of law to be announced at least one year before the date of competition. The precise subject of each of the essays will be set on the conclusion of the Graduation Examination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in November 1895.

Scholars—1889, J. M. Irvine, M.A., B.Sc.
1892, *J. S. Taylor Cameron*, LL.B.; *prox. accesserunt*—William Chree, LL.B.; Alexander Thomson, LL.B.

III. *Vans Dunlop Scholarship in Scots Law and Conveyancing.*

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in Scots Law, Conveyancing, and Medical Jurisprudence: provided they have obtained at the Graduation Examination an average of not less than 75 per cent. of marks in these three subjects.

(*b.*) The Competition is by written Essays on (1) the Civil Law of Scotland; (2) the Criminal Law of Scotland; and (3) Conveyancing, the particular branches of which will be announced at least one year before the date of competition. The precise subject of each essay will be set on the conclusion of the Graduation Examination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in November 1896.

Scholars—1890, William Hunter, M.A., LL.B.
1893, *Alexander D. Donald, B.L.*

CONDITIONS OF TENURE.

Each holder of No. II. and No. III. of these Scholarships will be required to deliver, to the satisfaction of the Faculty of Law, two

courses of three lectures each on one of the subjects of examination for the Scholarship, viz., one course in the second, and the other in the third year of his tenure.

IV. *Vans Dunlop Scholarship in History.*

The Competition is open to all Matriculated Students who have regularly attended classes in the University for not less than two and not more than six years, and who have also attended one or more courses of Lectures on General or on Ecclesiastical History.

The Scholarship will be awarded by competitive examination. The Examiners are the Professors of History and of Ecclesiastical History, and either the Professor of Latin or the Professor of Greek.

Next vacancy in October 1895.

1889. D. P. Heatley.	*Prox. accesserunt*—J. E. Pickles,
1892. John Linton, M.A.	W. B. Stevenson, M.A.

V. The Lorimer Travelling Scholarship.

The Lorimer Travelling Scholarship, of the annual value of about £50, tenable for two years, for the encouragement of the study of the "Law of Nature and Nations" in foreign Law Schools by Students and Graduates in the Faculty of Law, was founded by the Lorimer Memorial Committee and the Association for the better Endowment of the University. The Scholarship is open to Candidates who, during the two years immediately preceding that in which a scholar falls to be appointed, have completed the examinations for any Degree in Law in the University in the following subjects, namely—(1) The "Law of Nature and Nations" (including therein the Philosophy of Law); (2) The Civil Law; and (3) Either (*a*) Constitutional Law and History, or (*b*) Political Economy. The foreign Law School or Schools which the Scholar proposes to attend must be previously approved by the Faculty of Law. The Candidate who, in the opinion of the Faculty of Law, passes with most distinction in the Examinations for Graduation in Law, in the subjects above set forth, during the two years immediately preceding the election, and who is willing to fulfil the conditions imposed by the Deed of Foundation, will be eligible, consideration being always given to his proficiency in the first of the above-named subjects, and to his knowledge of the modern language or languages spoken in the Law School or Schools where he proposes to study. For Deed of Foundation, see CALENDAR for 1892-93, p. 538.

This Scholarship will be offered for Competition in July 1895.

III.—WILLIAM DICKSON TRAVELLING FUND.

This fund is for the purpose of assisting Graduates of any Faculty of not more than three years' standing to travel for the purposes of study or research. For particulars, see page 313.

IV.—THE FORENSIC PRIZE.

This Prize, of the value of £10, founded in 1858 by the Forensic Society with the view of encouraging the study of Roman Law, is awarded either in July or in October, as may be found convenient. It can be competed for only by Students of the Civil Law Class during the preceding year. The Fund, amounting to about £280, is invested in the name of the Dean and Treasurer of the Faculty of Advocates and the Professors of Civil and Scots Law.

1890 { Alex. Brown, LL.B. / T. B. Morison, LL.B. } equal
1891. Thomas C. Wade.
„ *Prox. access.*—Robt. Munro, M.A., and A. D. Donald.
1892. Charles Lippe, M.A. (Aber.).
Prox, access.—C. R. Gillies Smith, M.A. (Edin.).
1893. *F. M. Anderson, M.A.*

SCHOLARSHIPS, BURSARIES, AND PRIZES, &c., OPEN IN 1894-95.

I.—Scholarships.

No. I. of the above Scholarships will be open for competition after the conclusion of the Graduation Examination in October 1895. The works on Political Economy recommended to Candidates are:—

Adam Smith's *Wealth of Nations*, Books III., IV., V.
Nicholson's *Principles of Political Economy*, Vol. I.
Marshall's *Principles of Economics*, Vol. I.
Sidgwick's *Principles of Political Economy*, Book III.
Nicholson's *Money and Monetary Problems* (2nd ed.), Part II.
Wieser's *Natural Value* (translated).
Cunningham's *Growth of English Industry and Commerce*, Vol. I.
Nicholl's *History of the English Poor Law;* and *History of the Scotch Poor Law.*
Bastable's *Public Finance.*

Those on Mercantile Law:—
Smith's *Mercantile Law* (10th ed.).
Abbot on *Shipping* (13th ed.).
Benjamin on *Sales* (3rd or 4th ed.).

No. II. will be offered for competition after the conclusion of the Graduation Examination in October 1895. The subjects of the Essays to be set will be taken from the following branches of Law:—

(1.) "*Mare Liberum* and *Mare Clausum.*"
(2.) "The Roman Law of Sale."
(3.) "The Constitution from 1688 to 1832."

No. IV. will be offered for competition on the third Monday, Tuesday, and Wednesday in October 1895, beginning at 10 A.M. each day. The subjects prescribed are:—

(1.) "History of Great Britain from 1714 to 1820."

(2.) "History of Scotland from 1603 to 1746," both years included.
(3.) History of Rome from 88 B.C. to 14 A.D.
(4.) "History of France under Louis XIV."

No. V. will be open in July 1895. Candidates must send in their applications on or before 15th July.

II.—Bursaries.

The Subjects of Examination for first-year Bursaries are Latin and Moral Philosophy, and are the same as the October Examinations in these subjects for M.A.

1, 2, 3. *Three Grierson Bursaries*, value £26, 13s. 4d. each, restricted in the first place to natives of the parishes of Crawford and Leadhills, and tenable for three years, whom failing they will be tenable for one year. One will be open to Students beginning their first Winter Session, one to Students beginning their second Winter Session, and one to Students beginning their third Winter Session (see general rule as to application, *sup.*).

3. The *Cairns Bursary*, value £18, 19s. 6d., tenable for one year (see general rule, *sup.*).

4. The *Sibbald Bursaries*, of the annual value of £30, and tenable for three years, are also tenable by Students in the Faculty of Law entering the University for the first time. Apply to Messrs Mackenzie, Innes & Logan, 23 Queen Street, Edinburgh.

5. A *Thomson Bursary*, of £25 a year, tenable for four years. Candidates must be Matriculated Students commencing their First Winter Session in the Faculty of Law, and must intimate their intention to compete to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, the Agents for Dr Thomson's Trustees, and also to the Clerk of the Senatus on or before 1st October. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries or the city of Edinburgh, are preferred.

6. *Renton Bursary*, of about £18, 8s. 6d., tenable for one year, is for a Student pursuing his studies in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of these classes as he may consider proper, and whose circumstances are such that he may require assistance. It cannot be held by any one under the age of sixteen or above twenty-one, and the Bursar shall cease to hold it if during the same session he shall be appointed to another Bursary of the value of £30 or upwards. The examination is in English and Elementary Mathematics, and will take place on Saturday, 3rd November, at 10 o'clock. Names of Candidates to be entered at the Matriculation Office, on or before 27th October.

III.—Prizes.

1. The *Forensic Prize* of £10 is awarded annually, either for the best Essay upon a subject prescribed by the Professor of Civil Law, or as the result of a special examination held either in July or October.

It can be competed for only by Students who have attended the Civil Law Class during the preceding year. The subject of Essay or date of Examination, as the case may be, is announced by the Professor early in the session.

2. The *Muirhead Prize*, of about £17, 10s. annually, is awarded to the Student who gains the first place in the Class of Civil Law, as determined by the results of the periodical examinations during both the Winter and Summer Sessions.

3. The *William Dickson Travelling Fund* assists Graduates of any Faculty of not more than three years' standing to travel for the purpose of study or research. Applications must be lodged with the Secretary of Senatus on or before 15th March annually.

4. The *Lord Rector's Prize*, of twenty-five guineas, for the best Essay on "The Writings of Edmund Burke."

The Prize is open to Students of the University, and to Graduates of not more than two years' standing. Essays to be lodged with the Secretary of Senatus before 1st November, each bearing a motto, and containing the name, address, and University standing of the Candidate.

5 and 6. *The Trustees of Gray's Prize Essay Fund* offer two Prizes of £20 and £10 for the first and second Essays on "The Poetry and other writings of James Russell Lowell."

The attention of all Bursars in the Faculty of Law is particularly called to the following Regulation:—

"Bursars connected with the Faculty of Law must annually attend and perform the work of at least one Class in the Faculty.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance, &c., on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars by the *Dean of the Faculty of Law* after the 13th November; also at the end of the Session in April. In applying to the Dean for the Certificate in November, Bursars must present to him their Class Cards for the Session, as evidence that they have enrolled in their classes; and at the end of the Session they must present to him certificates from the Professors to the effect that they have attended with regularity and have performed the work of the Class. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 14th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars and Scholars who desire to resign should at once intimate this to the Factor. If they do not apply to the Factor within three months for the instalments due to them, they will be regarded as having resigned.*

JOHN KIRKPATRICK, LL.D.,
Dean of the Faculty of Law

V.

FACULTY OF MEDICINE.

1894-95.

Dean.

PROFESSOR THOMAS R. FRASER, M.D., LL.D., F.R.S.,

University New Buildings.

Programme of Classes.

FACULTY OF MEDICINE.

WINTER SESSION, 1894-95.

The Classes in the Faculty of Medicine will be opened on Tuesday, 9th October. They will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.
Medicine	9 Oct., 9 o'cl.	Prof. Sir Thos. Grainger Stewart, ...	£4 4
Chemistry	9 Oct., 10 ,,	Prof. Crum Brown	4 4
Practical Chemistry	3 Dec., 11 and 2 o'cl.		3 3
Surgery	9 Oct., 11 ,,	Prof. Chiene, ...	4 4
Physiology or Institutes of Medicine	9 Oct., 10 ,,	Prof. Rutherford,	4 4
Practical Physiology	10 Oct., 1 ,,		3 3
Do. (Advanced[1])	16 Oct., 11 ,,		3 3
Midwifery & Diseases of Women & Childr.	9 Oct., 10 ,,	Prof. Simpson, ...	4 4
Clinical Surgery—[2] Royal Infirmary, *Mon. & Thurs.*	11 Oct., 12 ,,	Prof. Annandale,	4 4
Clinical Medicine—[2] Royal Infirmary, *Tues. & Fri.* ...	9 Oct., 12-2 o'clock	Profs. Sir Thomas Grainger Stewart, Fraser, and Greenfield, and Simpson on Diseases of Women, ...	4 4
Clinical Instruction in the Royal Infirmary[2]	11 *daily.* . .	The Clinical Professors	
Anatomy	9 Oct., 1 o'cl.	Prof. Sir William Turner, ...	4 4
Practical Anatomy ...	1 Oct., *daily*		3 3
Anatom. Demonstr. ..	9 Oct., 4 o'cl.		2 2[3]
Materia Medica and Therapeutics	9 Oct., 2 ,,	Prof. Fraser, ...	4 4
Pract. Mat. Medica, includ. Pharmacy	10 Oct., 10 ,,		3 3

[1] This Class meets for two hours twice a week throughout the Winter Session only.
[2] Only open to Students holding the Hospital Ticket (see page 542).
[3] When taken along with Practical Anatomy, £1, 1s.

WINTER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Lecturers.	Class Fees.
Pathology	9 Oct., 3 o'cl.	Prof. Greenfield,	£4 4
Practical Pathology...	10 Oct., *daily*		3 3
Zoology (Elementary)[1]	9 Oct., 12 o'cl.		4 4
Do. (Advanced)[1].	9 Oct., 3 ,,	Prof. Ewart, ...	2 2
Practical Zoology (Elementary)[1].....	9 Oct., 11 ,,		2 2[2]
Do. (Advanced)[1]	9 Oct., 1.30,,		3 3[2]
Physics[1].....	9 Oct., 3 ,,	Prof. Tait, ...	3 3
Advanced Botany[1]....	9 Oct., 11 ,,	Prof. B. Balfour,	2 2[3]
Prac. Bot. (Advanced)[1]	9 Oct., 11 ,,		3 3[3]
Medical Jurisprudence and Public Health	*Given in Summer Session*	Prof. Sir Douglas Maclagan, ...	4 4
Public Health Lectures	24 Jan., 3 o'cl.		0 0[4]

Classes.	Days of Opening and Hours of Lectures.	Lecturer.	Class Fees.
Mental Diseases, with Clinical Instruction at Morningside Asylum	*Given in Summer Session*	T. S. Clouston, M.D., ...	3 3[5]
Diseases of the Eye...	*Given in Summer Session*	D. Argyll Robertson, M.D.	3 3[5]
Clinical Instruction on Diseases of Children at Royal Hospital for Sick Children.....	13 Oct., 12 noon.	Jas. Carmichael, M.D., John Playfair, M.D.,	1 1[5]
Compar. Embryology	8 Jan., 2 o'cl.	J. Beard, D.Sc., Ph.D.	3 3[5]

The Fee for a Second Course of any of the Lectures is £3, 3s.; any subsequent course is free. If a Perpetual Ticket is taken out at the beginning of the First Course, the Fee is £6, 6s.

1 Three Months' Course.
2 Besides charge of 10s. for Laboratory Expenses.
3 Besides Garden Fee of 5s.
4 Open to Members of Medical Jurisprudence Class, 1894.
5 Five Shillings University Entrance-Fee for Non-Matriculated Students.

SUMMER SESSION, 1895.

The Classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.
Elementary Botany.....	1 May, 8 o'cl.	Prof. Bayley Balfour,	£4 4[1]
Practical Botany.....	1 May, 9 ,,		2 2[1]
Field Demonstrations on *Saturdays*.			
Physics	1 May, 12 ,,	Prof. Tait, ...	3 3
Medical Jurisprudence and Public Health...	1 May, 10 ,,	Prof. Sir Douglas Maclagan,	4 4
Zoology (Advanced) ...	1 May, 3 ,,	Prof. Ewart,	2 2
Practical Zoology (Elementary)	1 May,[2] ,,		2 2[3]
Do. (Advanced)...	2 May,[2] ,,		3 3[3]
Prac. Materia Medica (incl. Pharmacy).....	1 May, 10 ,,	Prof. Fraser,....	3 3
Chemistry (Practical)..	1 May, 2 ,,	Prof. Crum Brown,	3 3
Do. (Organic)....			
Advanced Class — (*Tues., Wed., & Thur.*)	1 May, 1 ,,		2 2
Anatom. Demonstra.	1 May, 11 *daily*.	Prof. Sir W. Turner and Demonstrators.	
Practical Anatomy.....	1 May, *daily*.		2 2
Anthropology— (*Tues., Wed., Fri.*)	7 May, 2 o'cl.		2 2[4]
Clinical Surgery,[5] Royal Infirmary (*Mon. & Thurs.*).....	2 May, 12 ,,	Prof. Annandale,	3 3
Clinical Medicine,[5] Royal Infirmary (*Tues. & Fri.*)	1 May, 12 to 2	Profs. Sir Thos. Grainger Stewart, Fraser and Greenfield, and Prof. Simpson on Dis. of Women.	3 3
Clinical Instruction in the Royal Infirmary.[5]	12 *daily*. . .	The Clinical Professors	
Obstetrical and Gynecol. Operations— (*Tues. & Fri.*)	1 May, 10 o'clock	Prof. Simpson,	£3 3

[1] Besides Garden Fee of 5s.
[2] At hours to be arranged.
[3] Besides charge of 10s. for Laboratory Expenses.
[4] When taken with Practical Anatomy, £1, 1s.
[5] Only open to Students holding the Hospital Ticket (see page 542).

SUMMER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.
Practical Physiology, including Histology....	1 May, 3 o'cl.	Prof. Rutherford,	£3 3
Do. (Advanced)...	*In Winter only.*		3 3
Operative Surgery and Surgical Appliances	15 April.....	Prof. Chiene, ...	3 3
Practical Morbid Anatomy and Pathology	1 May, 11 o'cl.	Prof. Greenfield,	3 3
		Lecturers.	
Mental Diseases, with Clinical Instruction at Morningside Asylum (*Mon. Wed. & Frid.*)	1 May, 3 o'clock	Thos. S. Clouston, M.D., ...	3 3[1]
Diseases of the Eye ...	6 May, 9 ,,	D. Argyll Robertson, M.D.,	3 3[1]
Clinical Instruction on Diseases of Children, at Royal Hospital for Sick Children..... (*Tues. and Sat.*)...	4 May, *Tues.* 10.30. *Sat.* 12.0.	James Carmichael, M.D., John Playfair, M.D., ...	1 1[1]

[1] Five Shillings University Entrance-Fee for Non-Matriculated Students.

ROYAL INFIRMARY.

Royal Infirmary at Eleven *daily*.—Perpetual Ticket, in one payment, £12; Annual Ticket, £6, 6s.; Six Months, £4, 4s.; Three Months, £2, 2s. Separate payments, amounting to £12, 12s., entitle to a Perpetual Ticket.

MATRICULATION.

Students are required to take out their Matriculation Ticket and Class Tickets for each course of Lectures, which they propose to attend, not later than fifteen days after the commencement of the course. Matriculation consists in paying during each year of study an entrance fee to the University, and in inscribing the name in the Students' Album.

All Candidates for Degrees, not Students of the University, availing themselves of the permission to attend the Classes of Extra-Academical Teachers in Edinburgh, must conform to the Regulations, Section VIII., 5, 6, page 573.

The Matriculation Fees, &c., are—

For the Academic Year (1st October to 1st October) .	£1	1	0
For the Summer Session only (1st May to 30th September inclusive), ...	0	10	6
(Candidates entering for Graduation Examinations in Summer or for Graduation pay £1, 1s., unless previously matriculated for the whole year.)			
University entrance-fee in lieu of Matriculation for each of certain additional Courses (see Class-Lists), . .	0	5	0

CLASS SESSIONS.

There are Two Sessions in each year, viz. :—

I. The Winter Session, which opens on Tuesday, 9th October 1894, and closes on Friday, 22nd of March 1895. Practical Anatomy and Public Health Laboratory work begin on the 1st of October 1894.

The Classes will meet for the last time before the Christmas Vacation on Friday, 21st December 1894, and will reassemble on Tuesday, 8th January 1895.

II. The Summer Session, which opens on Wednesday, 1st May, and closes on 19th July 1895.

LABORATORIES.

The University contains the following Laboratories and Museums, several of the latter belonging in part to the Professors of the respective subjects :—

THE PHYSICAL LABORATORY, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

THE BOTANICAL LABORATORY at the ROYAL BOTANIC GARDEN is open daily for the practical study of plants and for research, under the superintendence of the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, B.A.

PHYSIOLOGICAL LABORATORY, for the prosecution of Physiological Research, and for the study of Practical Physiology, open daily, under the superintendence of the Professor, assisted by E. W. Carlier, M.D., C.M., B.Sc., and Gustav Mann, M.D., C.M.

PRACTICE OF MEDICINE LABORATORY, for the study of Medicine, and for research in connection with the Practice of Physic, open daily, under the superintendence of the Professor, assisted by Robert A. Fleming, M.A., M.B., C.M.

DISSECTING ROOMS, open daily under the superintendence of Professor Sir William Turner, assisted by David Hepburn, M.D.; J. B. Yeoman, M.B., C.M.; and other assistants. Open 1st October 1894.

THE CHEMICAL LABORATORIES (distinct from the Practical Chemistry Room), completed in 1885, contain accommodation for forty Students. The Laboratories are fitted with all necessary apparatus for chemical analysis and research, open daily, under the superintendence of the Professor, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc., and A. Forbes Watson, B.Sc.[1]

OBSTETRICAL AND GYNECOLOGICAL LABORATORY, for research and study of practical work, under the superintendence of the Professor, assisted by J. Clarence Webster, B.A., M.D.

TUTORIAL CLASS OF CLINICAL MEDICINE, in the Wards of the Royal Infirmary, by Joseph Tillie, M.D.; W. Gordon W. Sanders, M.B., C.M.; Robert A. Fleming, M.A., M.B., C.M.; under the superintendence of the Clinical Professors.

NATURAL HISTORY LABORATORIES, for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the superintendence of the Professor, assisted by J. Beard, D.Sc., Ph.D.[2]

MATERIA MEDICA LABORATORIES, for the study of Practical Materia Medica and Practical Pharmacy, and for Pharmacological and Pharmaceutical research, open daily, under the superintendence of the Professor, assisted by Joseph Tillie, M.D., and William C. Sillar, M.B., C.M., B.Sc.

TUTORIAL CLASS OF CLINICAL SURGERY AND SURGICAL PATHOLOGY, in the Infirmary, by A. Logan Turner, M.D., C.M., F.R.C.S.E., and the Resident Surgeons, under the superintendence of the Clinical Professor.

PUBLIC HEALTH LABORATORY, for Hygienic investigation, comprises three departments, viz.: a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the superintendence of the Professor, assisted by Charles Hunter Stewart, M.B., C.M., D.Sc., and J. Buchanan Young, M.D., D.Sc. Opens 1st October 1894 and 1st May 1895.[2]

SURGICAL LABORATORY, divided into two parts—(*a*) General Surgical Pathology, (*b*) Bacteriology,—is utilised for teaching Systematic Surgery, and every facility is afforded for investigation, under the superintendence of the Professor, assisted by Harold J. Stiles, M.B., C.M.

[1] Fees for Chemical Laboratory:—Winter Session, £10, 10s.; Winter Session, whole day, Oct.-Dec., or Jan.-March, or Summer Session, £5, 5s.; Winter Session, half day, £6, 6s.: Winter Session, half day, Oct.-Dec., or Jan.-March, or Summer Session, half day £3, 3s. Preference wil be given to Students in the above order.

[2] Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

PATHOLOGICAL LABORATORY, for the study of Pathological Anatomy and for Pathological Research, including Histological and Bacteriological Departments, under the superintendence of the Professor, assisted by Robert Muir, M.A., M.D., and David Stuart, M.B., C.M.

THE ROYAL EDINBURGH ASYLUM is open to members of the Class of Mental Diseases for Practical Instruction, under the superintendence of the Physician-Superintendent.

PRACTICAL INSTRUCTION in the use of the Ophthalmoscope and in the detection of errors of refraction is given to members of the Class of Diseases of the Eye at the Eye Wards of the Royal Infirmary, under the Superintendence of the Lecturer.

GENERAL MEDICAL COUNCIL REGISTRATION OF STUDENTS OF MEDICINE.

According to the Regulations of the General Medical Council of the United Kingdom, all Medical Students must register in the Medical Students' Register of the General Medical Council within fifteen days after the commencement of Medical Study, and should not neglect this requirement. Forms of application and full information regarding Registration may be obtained from James Robertson, Registrar of the Branch Council for Scotland, 1 George Square, Edinburgh, or at the Office of the Faculty of Medicine.

MINIMUM CURRICULUM FOR THE DEGREES OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY, WITH SUGGESTED ORDER OF STUDY AND EXAMINATION.

Before beginning Medical Study, all students must pass the Preliminary Examination in General Education, either at the University, or, if elsewhere, according to the requirements of the University. Immediately after entering on Medical Study, students must register in the books of one or other of the Registrars of the General Medical Council. The Registrar for Scotland is Mr James Robertson, 1 George Square, Edinburgh, from whom forms of Registration and all information on the subject may be obtained.

Medical Study may be begun either in October (Winter Session) or May (Summer Session), and must be engaged in for at least five years.

A.—*For Students beginning in Winter.*

FIRST WINTER SESSION.
- Chemistry, including Practical Chemistry.
- Physics or Elementary Zoology.
- Anatomy (Lectures).
- *Examination in Chemistry, including Practical Chemistry, and either Physics or Elementary Zoology.*

FIRST SUMMER SESSION.
- Elementary Zoology or Physics.[1]
- Elementary Botany.
- *Examination in Elementary Botany and Elementary Zoology or Physics.*

SECOND WINTER SESSION.
- Practical Anatomy.
- Physiology.
- Surgery.

SECOND SUMMER SESSION.
- Practical Physiology.
- Practical Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.

THIRD WINTER SESSION.
- Materia Medica.
- Practical Anatomy.
- Clinical Surgery (with Dressership).
- Hospital.
- *Examination in Anatomy, Physiology, and Materia Medica and Therapeutics* (the last may be postponed to the end of the following summer).

THIRD SUMMER SESSION.
- Practical Pathology.
- Medical Jurisprudence and Public Health.
- Clinical Medicine.
- Hospital.
- *Examination in Materia Medica and Therapeutics* (if not previously taken).

FOURTH WINTER SESSION.
- Pathology.
- Medicine.
- Midwifery and Diseases of Women and Children.
- Clinical Medicine (with Clerkship).
- Hospital.
- *Examination in Pathology, and in Medical Jurisprudence and Public Health* (the latter may be postponed to the end of the following summer).

FOURTH SUMMER SESSION.
- *Examination in Medical Jurisprudence and Public Health* (if not previously taken).

FOURTH SUMMER AND FIFTH WINTER SESSION.
- Clinical Medicine.
- Clinical Surgery.
- Mental Diseases.
- Ophthalmology.
- Post-mortem Examinations.
- Fevers.
- Diseases of Children.
- Out-practice of an Hospital, Dispensary, &c.
- Midwifery Cases and Practice.
- Vaccination.
- Hospital.

FIFTH SUMMER SESSION.
- *Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.*

[1] Three months' course.

B.—*For Students beginning in Summer.*

FIRST SUMMER SESSION.
- Elementary Botany.
- Physics.[1]
- *Examination in Elementary Botany and Physics.*

FIRST WINTER SESSION.
- Chemistry, including Practical Chemistry.
- Elementary Zoology.
- Anatomy (Lectures).
- *Examination in Chemistry, including Practical Chemistry and Elementary Zoology.*

SECOND SUMMER SESSION.
- Practical Anatomy.
- Practical Physiology.

SECOND WINTER SESSION.
- Physiology.
- Surgery.
- Practical Anatomy.

THIRD SUMMER SESSION.
- Practical Anatomy.
- Practical Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.

THIRD WINTER SESSION.
- Practical Anatomy.
- Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.
- *Examination in Anatomy, Physiology, and Materia Medica and Therapeutics* (the last may be postponed to the end of the following summer).

FOURTH SUMMER SESSION.
- Practical Pathology.
- Medical Jurisprudence and Public Health.
- Clinical Medicine.
- Hospital.
- *Examination in Materia Medica and Therapeutics* (if not previously taken).

FOURTH WINTER SESSION.
- Pathology.
- Medicine.
- Midwifery and Diseases of Women and Children.
- Clinical Medicine (with Clerkship).
- Hospital.
- *Examination in Pathology, and Medical Jurisprudence and Public Health* (the latter may be postponed to the end of the following summer).

FIFTH SUMMER SESSION.
- *Examination in Medical Jurisprudence and Public Health* (if not previously taken).

FIFTH SUMMER AND FIFTH WINTER SESSION.
- Clinical Medicine.
- Clinical Surgery.
- Mental Diseases.
- Ophthalmology.
- Post-mortem Examinations.
- Fevers.
- Diseases of Children.
- Out-Practice of an Hospital, Dispensary, &c.
- Midwifery Cases and Practice.
- Vaccination.
- Hospital.
- *Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.*

[1] Three months' course.

Courses of Lectures, &c.

1894-1895.

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I. BOTANY.

PROFESSOR BAYLEY BALFOUR.

Winter Session, 1894.

LECTURES.—A three months' course of Advanced Lectures and an Advanced Course in Practical Botany will be given in the Winter Session.

Summer Session, 1895.

1. LECTURES.—The course is a general one—Morphological, Physiological, and Systematic—illustrated by diagrams, models, and fresh specimens, and by demonstrations of microscopic specimens. Lectures are given every Monday, Tuesday, Wednesday, Thursday, and Friday. In addition, lectures on special parts of the subject are given at intervals during the Session.

2. PRACTICAL CLASS.—In this class opportunity is given for the examination of microscopic structure of plants, and for the study of life-histories of plants illustrating the lectures. They are conducted by the Professor, and Assistants.

3. EXCURSIONS. — Excursions are made on Saturdays for the practical study of plants in the fields.

The Royal Botanic Garden, with the Botanical Museum and Herbarium, are open daily for the examination of living as well as preserved specimens of plants.

II. NATURAL HISTORY.

PROFESSOR EWART.

1. Lectures on Zoology.

Winter Session.—The first part of the course will treat of the Principles of Biology as illustrated by the Life-History, Morphology, and Physiology of one of the Vertebrata. The Distinctive Characters of the Chordata, and the structure, habits, &c., of a series of vertebrate types will next be considered. The rest of the course will be chiefly devoted to a consideration of (1.) The leading types of Invertebrates. (2.) The structure and life-history of the more important animal parasites, and (3.) The elements of Embryology, Classification, and Geographical Distribution of Animals.

2. Elementary Practical Zoology.

Winter and Summer Sessions.—In this Class Students have the opportunity of studying practically the more important types described in the Lectures, amongst others: — Amœba, Paramœcium, Hydra, Hirudo, Arenicola, Helix, Astacus, Raia, Rana, Columba, and Lepus.

3. Intermediate Course.

This Course will be held during the Summer Session, and will be devoted to an account of the systematic Zoology of the Invertebrata.

4. Advanced Class.

This Class is especially intended to assist Students in their preparation for the Degree of B.Sc. in Zoology.

During one term an account will be given of the Comparative Morphology of the chief systems of organs of the Invertebrata, more especially of the nervous, reproductive, locomotor, and excretory systems, and also of the phenomena of Reproduction in the Protozoa and Metazoa.

A second Course will be devoted to the Comparative Mor-

phology of the Vertebrata, the nervous system and its sense organs, electrical and luminous organs and the genito-urinary system receiving particular attention.

As far as time permits the present position of the question as to the morphological nature of the vertebrate head and skeleton will be discussed.

In both courses the principles which form the scientific basis of Comparative Morphology will be placed prominently before the student, and an account will also be given of the progress of Scientific Research, and the more important recent discoveries will be described. The class will meet at least three times each week.

LABORATORY WORK.—The Laboratory will be open during the Winter and Summer Sessions for the dissection and microscopic examination of a series of invertebrate and vertebrate types, and for the acquiring of a practical acquaintance with the methods of research.

RESEARCH WORK.—The Laboratories will also be available during both Sessions for research. Students desiring to be admitted for this purpose should apply to the Professor. No Laboratory fees will be charged for such Students.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

1. LECTURES—In the Lectures the general laws of chemical action are explained and illustrated.

The chief non-metallic elements and their more important compounds are discussed in detail. The metals and the different series of metallic salts are considered more generally, details being given in the case of the more important substances.

The principles upon which the classification of organic substances is based are explained, and the properties of the chief groups illustrated by means of examples.

Tutorial Classes, meeting once a week, are conducted by Dr Dobbin.

Text-Book.—Wurtz, "Elements of Modern Chemistry" by Greene.

A Class for Advanced Students is held in Summer. The subject for the Summer of 1894 will be Organic Chemistry.

2. LABORATORY.—In the Laboratory, Students who can devote several hours each day to work, are taught Chemical Analysis (including Mineral Analysis, Organic Analysis and Gas Analysis), the preparation of chemical substances, and the examination and determination of their properties. Students who are sufficiently advanced in such practical work may engage in the investigation of chemical problems under the superintendence of the Professor and the chief assistant.

[For details in reference to the HOPE PRIZE SCHOLARSHIPS, which are attached to the Laboratory; and the ROBERT WILSON MEMORIAL PRIZE, which is attached to the Class of Chemistry, see under University Scholarships and Prizes in Faculty of Medicine.]

3. PRACTICAL CLASSES.—The work of these classes consists in the study of the reactions of the commoner Salts.

Students who have worked for at least three months in the Chemical Laboratory do not require to attend the class of Practical Chemistry before appearing for the First Professional Examination for Degrees in Medicine or for the First B.Sc. Examination.

IV. PHYSICS.

PROFESSOR TAIT.

The subjects embraced in the Course of Physics are the following:—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

2. Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics

and Kinetics of Solid, Liquid, and Gaseous Bodies, with the Physical Measurement of Time.

3. Sound, and Wave-propagation in general, Intensity, Pitch, and Quality of Musical Sounds, Harmonics, Concords, &c.

4. Heat, its Nature, Effects, Measurement, Transference, and Transformations—Measurement of Temperature and of Absolute Temperature; Thermo-dynamics.

5. Light (1) Geometrical Optics, Speed of Light, Laws of Reflection and Refraction; Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes; Images, Conditions of Distinct Vision; (2) Physical Optics, Interference, Dispersion, Diffraction, Double Refraction, Polarization, Spectrum Analysis.

6. Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto- Electricity, Electro-Dynamics, and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

V. ANATOMY.

PROFESSOR SIR WILLIAM TURNER.

Winter Courses.

1. LECTURES ON ANATOMY, at 1 P.M.—It is intended in this Course of Lectures to bring before the Student, in a systematic manner, the structure of the Human Body. The different systems and organs will be described, both in the more obvious arrangements and relations of parts which can be examined by the naked eye, and in their more minute or microscopic structure. The Course includes, therefore, both Textural or General Anatomy and Descriptive Anatomy. The Lectures are illustrated by recent dissections, by wet and dry preparations, by a large collection of Osteological specimens, and by drawings and diagrams. Structures too minute to be recognised by the naked eye are demonstrated under the Microscope.

To assist the Junior Members of the Lecture Class to acquire

a knowledge of Osteology, Tutorial Demonstrations on the bones will be given during the earlier months of the Session without additional fee. All the members of this class have access to a systematically arranged series of osteological specimens and of models. Written examinations for both Junior and Senior Students are held periodically during the Session.

Text-Books—Gray's "Anatomy," or Wilson's "Anatomy." Quain's "Elements of Anatomy." Holden's "Osteology."

2. ANATOMICAL DEMONSTRATIONS, at 4 P.M.—In this Course, which is conducted in the Theatre, the structure of the human body is displayed and demonstrated topographically, from the surface inwards. The Professor and the Demonstrator, David Hepburn, M.D., will jointly conduct the Course.

3. PRACTICAL ANATOMY, under the superintendence of the Professor, aided by the Demonstrators, David Hepburn, M.D., C.M., J. B. Yeoman, M.B., C.M., and by several other assistants. Examinations of both Junior and Senior Students on dissected parts are regularly conducted by the Demonstrators and the Professor. Special tutorial Demonstrations will also be given to the Senior Students on the joints, the brain, the organs of special sense, and other viscera.

This Course will commence on Monday, October 1st. The Dissecting-rooms are open from 9 A.M. to 5 P.M., and on Saturdays from 9 A.M. to noon. The Mackenzie Bursaries are awarded to members of this Class for proficiency in dissection.

Text-Books.—"Demonstrations of Anatomy," by Ellis, or Heath's "Practical Anatomy," or Holden's "Manual of the Dissection of the Human Body," or Cunningham's "Manual of Practical Anatomy."

Summer Courses.

1. PRACTICAL ANATOMY, as in Winter. The Course will commence on Tuesday, 1st May. The Rooms are open from 9 A.M. to 5 P.M.; on Saturdays from 9 A.M. to noon. Examinations are regularly conducted on dissected parts by the Pro-

fessor and by the Demonstrators, David Hepburn, M.D., C.M., J. B. Yeoman, M.B., C.M., and other assistants, and the joints, brain, and organs of sense will be specially demonstrated.

2. ANATOMICAL DEMONSTRATIONS in the Theatre will commence on Wednesday, 2nd May, and will be given partly by the Professor, and partly by the Demonstrator, David Hepburn, M.D. This Course is open, without additional Fee, to those engaged in Practical Anatomy during the Summer, and will consist of demonstrations on some special departments of Anatomy.

VI. INSTITUTES OF MEDICINE OR PHYSIOLOGY.

PROFESSOR RUTHERFORD.

This Course, consisting of 100 Lectures, is held in the Winter. It includes an account of—

1. The Structure, Composition, and Functions of the Tissues of the Body.
2. The Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the minute structure of the organs concerned.
3. Animal Heat.
4. Voice and Speech.
5. The minute structure and physiology of the Sense organs, and the special physiology of the Nervous System.
6. Reproduction and Development.

There is a printed Syllabus with short notes of the Lectures.

PRACTICAL PHYSIOLOGY.

This Course is divided into three sections—

1. *Practical Histology*, in which every Student prepares, examines, and preserves for himself most of the tissues and organs of the body. Each student is provided with a microscope, and all reagents.

2. *Practical Chemical Physiology*, in which every student performs the qualitative and quantitative analysis of the Urine in its normal and abnormal conditions, with special reference to clinical work, and such practical work at the Chemistry of Proteids and Carbohydrates, Blood, Milk, and Bile as is possible in a class.

The above sections of the class are held both in the Winter and Summer Sessions. In each session the class meets sixty times.

3. *Demonstrations of Physiological Instruments.*—This section of the class is held only in Winter, and is open to all who have attended the other sections of the course.

Advanced Practical Physiology.

This Course consists of laboratory work in Experimental and Chemical Physiology and Histology, of a more advanced nature than that of the ordinary class of Practical Physiology, in Winter only. The Course is more especially adapted for those who are preparing for Natural Science, Vans Dunlop Scholarship, and other Honours Examinations in Physiology, as well as for those who may afterwards desire to prosecute Physiological Research. The Class meets for two hours twice a-week throughout the Winter Session, beginning in October. Fee, £3, 3s.

Physiological Research.

The Physiological Laboratory is open daily for the prosecution of Physiological Research. Application must be made to the Professor.

VII. MATERIA MEDICA AND THERAPEUTICS.

PROFESSOR THOMAS R. FRASER.

Materia Medica comprises the subjects of pharmacognosy, pharmacy, pharmacology, therapeutics, and dietetics; and the remedial applications of electricity and galvanism, heat and cold, &c. Instruction in Materia Medica is given in (A) a course of 100 Lectures during the Winter Session, and in (B)

Practical Classes during the Summer Session, and of equivalent duration during the Winter Session.

A.—Lectures on Materia Medica and Therapeutics. —This course includes the following among other *Special Topics.*—1. The natural history, pharmacy, physiological action (or pharmacology), therapeutical uses, and modes of administering remedies, ordinarily so called. Such remedies consist of (*a*) mineral substances; (*b*) vegetable substances; (*c*) animal substances. 2. Food and drink, considered generally and in reference to disease. 3. Electricity and galvanism, with a description of the apparatus required for their application in disease. 4. Heat and cold. 5. Climate. In each course of Lectures the subjects included in 1 will be fully discussed, but a selection only will be made from the subjects included in 2, 3, 4, and 5, according to the time that may be left for their consideration.

B.—Practical Classes.—In these classes, *practical* instruction is given in the following subjects embraced in Materia Medica, but which cannot satisfactorily be taught in a course of lectures:—1. Pharmacognosy, or the recognition of drugs by their physical and chemical characters, and the detection of adulterations. 2. Pharmacy, or the processes for obtaining the pharmaceutical preparations of drugs. 3. Prescription-writing. 4. Dispensing, or the making up of medicines in forms suitable for administration in disease.

It is recommended that the Practical Class be attended before the course of lectures on Materia Medica and Therapeutics. Practical classes are taught during the Summer Session, when they meet daily at such hours as are found most convenient. A winter class will also be formed in October.

Research Laboratories.

The above laboratories will be open daily to present and former Students of the class of Materia Medica for Research on the pharmacological action and chemical composition of Medicinal substances, under the superintendence of the Professor and his Assistants. Application to be made to the Professor.

VIII. PATHOLOGY AND MORBID ANATOMY.

PROFESSOR GREENFIELD.

This Course includes General Pathology, General Pathological Anatomy and Histology, and Systematic Morbid Anatomy.

The subjects are treated mainly in the following order—

1. General Pathology (including General Pathological Anatomy), *i.e.*, the study of the processes of disease, as to their causation, phenomena, physiological and physico-chemical relations and characters. Under this head are considered Degenerative Processes, Inflammation, Repair, Morbid Growths, &c.

2. General Etiology is treated in fuller detail with reference to Parasitic and Infective Diseases, and includes Bacteriology and methods of bacteriological research.

3. Systematic Morbid Anatomy and Histology—a study of the more important diseases of the principal systems and organs of the body, especially in relation to structural and physical alterations.

In illustration of the lectures, in addition to plates, diagrams, &c., there are frequent naked eye and microscopic demonstrations of recent specimens, of preparations from the University Anatomical Museum and from the Professor's private collection —and also demonstrations of apparatus, photographs, sections, &c., by the limelight, and in other ways.

Practical Pathology.

Classes for Practical Instruction in Morbid Anatomy and Pathological Histology are conducted in the Pathological Laboratory—microscopes and other necessary apparatus being supplied. The Course consists of—1st. Naked Eye Demonstration; 2nd. Histological investigation and preparation of Morbid Structures and Organs; 3rd. Elementary Bacteriology.

For the Winter Course, the class meets five times a week, from the beginning of the Session till the end of January. For

the Summer Course, five times a week, from the beginning of May till the end of July.

The Laboratory is also open daily from 10 A.M. till 4 P.M. for Pathological Research, under the direction of the Professor and his Assistants.

IX. PRACTICE OF PHYSIC.

PROFESSOR SIR THOMAS GRAINGER STEWART.

This Course comprises—

I. An account of the nature, and more particularly of the clinical characteristics, and the treatment of the different types of morbid action.

II. An account of the morbid anatomy, clinical history, causes, diagnosis, prognosis, and treatment of the diseases of the different systems and organs.

It is intended that each course shall be, as far as possible, complete; but that, while the general principles (included in Part I.) shall be fully discussed each session, the diseases of individual systems (included in Part II.) shall be taken up in different order year by year, and certain systems selected for more minute consideration.

The course is illustrated by specimens from the Anatomical Museum of the University, and from the Professor's private collection, as well as by numerous drawings, diagrams, and charts.

Tutorial Class.

Practical instruction in connection with the Course is given to the members of the Class by the Assistant.

Text-Books.—Fagge's, Bristowe's, Bartholow's, Robert's, Osler's, or Frederick Taylor's "Practice of Medicine." Students are also advised to consult the Professor's "Introduction to the Study of Nervous Diseases," and Dr Graham Brown's, Drs Gibson and Russell's, or Dr Finlayson's works on Medical Diagnosis.

X. SURGERY.

PROFESSOR CHIENE.

Winter Session.

1. *Lectures*, 11 A.M. This course of lectures is devoted to a systematic consideration of the Principles and Practice of Surgery. It is intended that each course shall embrace, as far as possible, a complete view of the present aspects of the Science and Practice of Surgery.

Written examinations are held at stated periods, and at the end of the Session a practical examination is held on the work of the Tutorial Classes.

2. *Tutorial Instruction*, at hours most convenient for the students, includes—

(*a.*) *Practical Instruction* in *Bandaging* and the *Treatment* of *Fractures* and *Dislocations* on the living subject. This class is divided into sections for Senior and Junior Students.

(*b.*) Demonstrations of Surgical Instruments and Appliances.

(*c.*) Weekly Demonstrations on the Surgery of the Eye and Ear and on Surgical Pathology, illustrated by museum specimens.

(*d.*) Weekly Revisal of the Lectures, together with Demonstrations of the Preparations in the Surgical Museum illustrative of the Lectures on Surgery.

(*e.*) Lantern Demonstrations on Surgical Pathology.

Summer Session.

The Summer Session is devoted to a consideration of the Practical Aspects of Surgery. Special attention is given to Surgical Anatomy and Operative Surgery. The class meets during the months of April, May, and June. Oral examinations and tutorial instruction in the Treatment of Fractures and Dislocations, and in the uses of surgical instruments, form a special part of the course. Special demonstrations are given on Surgical Pathology.

The Surgical Laboratory is divided into two departments,—1st, Surgical Pathology; 2nd, Bacteriology. It is open daily for original work during the Winter and Summer Sessions, under

the superintendence of the Professor, assisted by Harold J. Stiles, M.B. Applications to be made to the Professor.

Text-Books—Winter Session.—The Professor's "Lectures on the First Principles of Surgery." Keen and White's Text-Book of Surgery. *Summer Session.*—The Professor's "Lectures on Surgical Anatomy," and Joseph Bell's Manual of Surgical Operations, 1892.

XI. MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

PROFESSOR SIMPSON.

The Course of Instruction comprises Lectures on—

I. The Anatomy and Physiology of the Female Organs of Reproduction.

II. The Physiology, Pathology, and Therapeutics of Pregnancy.

III. Parturition—Natural (Eutocia), and Morbid (Dystocia).

IV. The Hygiene, Pathology, and Therapeutics of the Puerperal State.

V. The Hygiene, Pathology, and Therapeutics of Infancy and Childhood.

VI. The Special Pathology and Therapeutics of the Female Organs of Reproduction.

One day in each week is devoted to the Gynecological Section of the Course; and the Diseases of Women may be studied clinically in the Royal Infirmary, in the Buchanan Medical Ward, in connection with the class of Clinical Medicine.

Midwifery may be studied clinically in the Royal Maternity, of which the Professor is, *ex officio*, one of the Medical Officers, and where he is in attendance during the first three months of the Winter Session. The Professor makes a special Clinical visit with the Students, who have taken the Maternity Ticket, on Saturdays, at the usual Lecture hour—10 A.M.; and he or one of the Assistant Physicians gives Clinical Instruction on Wednesday afternoons at 4 P.M.

After the Class-roll is made up, Tutorial classes are formed for Practical Instruction in the use of Obstetric and Gynecological Instruments and Appliances.

Medals and Certificates of Merit are awarded for answers at three Written Examinations held during the Session.

Summer Session.

A Course of Instruction in Obstetric and Gynecological Operations, with Demonstrations of the use of Instruments and Appliances, is conducted during the Summer Session at 10 A.M.

On Tuesdays and Fridays the Professor gives Lectures and Demonstrations. On the other days of the week the sections of the class are trained in the investigation and treatment of Female Diseases, and the members of the class have an opportunity of practising operations on lay figures.

Text-Books.—Playfair's, Lusk's, or Parvin's "Midwifery." The Professor's "Contributions to Obstetrics and Gynecology." Hart and Barbour's "Manual of Gynecology."

SCHOLARSHIPS IN MIDWIFERY AND GYNECOLOGY.

The Buchanan Scholarship in Gynecology, and the James Scott Scholarship in Midwifery are open to members of the class. For conditions, *see* "SCHOLARSHIPS IN MEDICINE."

XII. MEDICAL JURISPRUDENCE.

PROFESSOR SIR DOUGLAS MACLAGAN.

Part I.—Medical Jurisprudence.

MEDICAL EVIDENCE GENERALLY.

1. Documentary.
2. Oral.
3. Experimental—

Examination of the living; identity; Examination of the dead; identity; cause of death; exhumations, autopsies.

MEDICAL EVIDENCE SPECIALLY.

Questions affecting Health or Life.

1. Assaults and Homicide—

   Wounds and other external injuries; asphyxia. Starvation. Heat and cold. Poisons.

2. Suicide.

3. Offences against Chastity—

   Rape, &c.; concealment of pregnancy; criminal abortion; infanticide.

4. Malpraxis and Neglect of Duty.

Questions affecting Civil Rights or Social States.

Marriage and Divorce. Impotence and sterility. Live birth. Survivorship. Insanity. Feigned diseases.

Part II.—Medical Police. Public Health.

HYGIENE OF INDIVIDUALS.

Man—

Age and development. Sex. Constitution.

External Agencies—

Food and Drink. Air. Clothing. Ablutions. Exercise.

Habits and Modes of Life—

Temperance. Celibacy and Marriage. Professions: learned, mechanical, criminal. Punishments. Prostitution.

Duration and Expectancy of Life—

Life Assurance.

HYGIENE OF COMMUNITIES.

Sanitary Administration.

Climate—

Causing disease; remedying disease.

Towns, Camps, and Private Habitations—

Topographical position; water supply; heating and lighting; ventilation; drainage and sewerage.

Public Buildings—

Schools; churches; hospitals; theatres; prisons.

Cemeteries. Quarantine Establishments. Epidemics; Endemics. Disinfectants.

Text-Books.—Taylor's "Medical Jurisprudence," Guy's "Principles of Forensic Medicine," Parkes' "Practical Hygiene," Wilson's "Handbook of Hygiene," Louis Parkes' "Hygiene," Wynter Blyth's "Manual of Public Health," Whitelegge's "Hygiene and Public Health," Smith's "Laws Concerning Public Health," Vesey Fitzgerald's "Epitome of the Laws affecting Health," Newsholme's "Vital Statistics," Dykes' and Stuart's "Manual of Public Health Acts."

Public Health Laboratory.

The Laboratory comprises three Departments, the Chemical Laboratory, the Bacteriological Laboratory, and a station for making meteorological observations, and the examination of emanations from the soil.

The Laboratories will be open daily during the Winter and Summer Sessions, from 10 to 4, under the superintendence of the Professor, assisted by Charles Hunter Stewart, M.B., B.Sc., and James Buchanan Young, M.B., D.Sc. (P.H.).

The work in these Laboratories will constitute an advanced course of instruction in the Methods of Hygienic investigation, and is intended for those who may desire to prepare themselves for taking the Degrees of Science in Public Health, or for the duties of Medical Officer of Health.

The Fees are £10, 10s. for the Winter, and £6, 6s. for the Summer Session.

XIII. CLINICAL SURGERY.

PROFESSOR ANNANDALE.

The objects of this Course are to teach the symptoms, diagnosis, and treatment of Surgical diseases and injuries as met with in the living body, and to point out modifications and complications which occur in connection with them. With these views patients are brought before the class in the special University Clinical Theatre of the Infirmary, and their conditions are carefully examined and discussed, due regard being taken to avoid anything likely to injure their feelings or in any way aggravate their disease. The history and nature of the case having

been studied, the proper treatment is suggested and described, and is then either carried out at once or on the first convenient occasion. In addition to the regular lectures, operations are performed in the Clinical Theatre, practical instruction at the bedside is given in the wards of the Infirmary, and upon two days in the week the cases of patients attending the out-patient department are specially considered by the Assistant Surgeon, Mr Alexis Thomson, so as to instruct the students in connection with the minor and more common surgical affections. Practical instruction as to the examination of patients, the observation of symptoms, the treatment of surgical emergencies, the use of instruments, the application of dressings, and other surgical details is given by the Clinical Tutor (Dr Logan Turner) attached to the Chair, in small classes, which are free to all Students attending the Course.

Text-Books.—Any of the recent standard works upon Surgery. Students are also advised to study some of the best works (old and new) on the special subjects of Practical Surgery.

XIV. CLINICAL MEDICINE.

PROFESSORS SIR THOMAS GRAINGER STEWART, FRASER, AND GREENFIELD, WITH PROFESSOR SIMPSON FOR DISEASES OF WOMEN.

The course of Clinical Medicine, consisting of Clinical Lectures and Instruction in the University wards of the Royal Infirmary, is conducted conjointly by the Clinical Professors—all the Professors being on duty during both the Winter and Summer Sessions, the Professor of Midwifery giving lectures and demonstrations on Gynecological Medicine on certain days.

The Course consists of:—1. Practical Instruction on three days a week at the bedside. 2. Critical Expositions and Discussions of cases in the lecture-room on two days a week.

Every facility is afforded to members of the Class to act as Clinical Clerks, and those are preferred who have already had a course of tutorial instruction. At the close of each Summer Session, six gentlemen, who have been members of the Class, are

appointed to be Resident Physicians in the Clinical Wards during the following Winter and Summer Sessions.

CLINICAL TUTORIAL CLASS.

Practical instruction in the Methods of Physical Examination is given to the members of the Class by the University Clinical Tutors.

Junior Students are strongly advised to take this course of instruction along with their first course of Clinical Medicine.

LECTURESHIPS.

I. MENTAL DISEASES.

LECTURER—THOMAS S. CLOUSTON, M.D.

This course consists of—

1. Systematic Lectures in the University during the Summer Session on the Classification, Symptoms, Causes, and Treatment of Mental Diseases.

2. Pathological demonstrations, naked eye and microscopic, in the University and at the Royal Asylum, Morningside, of the Morbid Anatomy of Insanity. Students will have an opportunity of original investigation in the Pathological Museum of the Asylum, under the Pathologist of the Institution.

3. Clinical instruction at the Royal Asylum, Morningside (West House), in all the forms of Mental Disease. Students have the opportunity of personally coming in contact with and examining the cases, so as to learn the modes of managing and dealing with patients labouring under Mental Disease, and they are exercised in the diagnosis of Insanity and the drawing up of certificates; the aim being to enable them to recognise its early stages, to distinguish its varieties, to adopt suitable treatment, and to advise the relatives as to the question of sending the patient to an asylum or not. There is a clinical field of 500 beds, comprising all the wards except those for private patients. This part of the course extends through the Summer and the last month of the Winter Session.

4. Instruction in regard to the medico-legal, hereditary,

educational, and social relations of Mental Disease, and on its bearings and significance in ordinary medical practice.

There are Free Clinical Clerkships, tenable for three months, in the Royal Edinburgh Asylum, and in several other Asylums, in connection with the class.

Text-Book.—Dr Clouston's "Clinical Lectures on Mental Diseases."

II. DISEASES OF THE EYE.

LECTURER—D. ARGYLL ROBERTSON, M.D.

The course will consist—

1. Of systematic lectures delivered daily at 9 A.M. for seven weeks during the Summer Session, at which the symptoms, diagnosis, and treatment of the more important diseased conditions of the eye and its appendages will be discussed. The lectures will be illustrated by drawings, diagrams, &c.

2. Of clinical instruction daily at the Ophthalmic wards of the Royal Infirmary, where opportunities will be afforded for practising the use of the ophthalmoscope. Special practical instruction will be given in ophthalmoscopic affections and errors of refraction.

Text-Books.—Swanzy's "Handbook on Diseases of the Eye," Lawson on "Diseases and Injuries of the Eye," or Nettleship on "Diseases of the Eye."

Works of reference.—Fuchs' "Text-book of Ophthalmology," translated by Duane. Berry's "Treatise on Diseases of the Eye." Meyer's "Practical Treatise on Diseases of the Eye," translated by Fergus. Julius' "Ophthalmic Science and Practice." Landolt on the "Refraction and Accommodation of the Eye," translated by Culver. Gowers' "Medical Ophthalmoscopy."

III. CLINICAL INSTRUCTION ON DISEASE IN CHILDREN.

LECTURERS—JAMES CARMICHAEL, M.D., JOHN PLAYFAIR, M.D.

Two Courses, each of three months' duration, will be conducted annually, one during the Winter Session, and one during the Summer Session.

The instruction is given in the wards of the Royal Hospital for Sick Children. Special attention is directed to Hygiene, Diagnosis, and Treatment during the period of Infancy.

Works of reference.—Keating's "Cyclopædia of the Diseases of Children," Henoch or Eustace Smith on "Disease in Children."

Text-Book. — Carmichael's "Manual of Disease in Children."

IV. COMPARATIVE EMBRYOLOGY.

LECTURER—J. BEARD, D.SC., PH.D.

The Course consists of Lectures and Practical Work.

Lectures.—In the Lectures the following subjects will be dealt with:—The maturation, &c., of the egg and spermatozoan, the modes of formation of the germinal layers in a series of selected types, an account of the development of Scyllium or Raja, Amphioxus and Rana as a basis for general Vertebrate Embryology, the organogeny of the chief systems of organs in the Vertebrata, the evolution and comparative development of the placenta. A few lectures will be given on the general principles of Comparative Embryology, the recapitulation theory, and the nature of larval forms.

Practical Work.—Each member of the Class will have an opportunity of preparing for himself and studying a series of preparations to illustrate the development of Salmo, Rana, Gallus, and Lepus. In addition, an extensive series of preparations of Raja, Scyllium, Torpedo, and Lacerta, &c., and of certain Invertebrate forms will be available for reference and study.

In the Laboratory Work members of the Class may, if they choose, confine their studies to one particular type or to some selected branch of the subject, such as Mammalian Embryology.

Regulations for Graduation in Medicine and Surgery.

A.—APPLICABLE TO ALL WHO COMMENCE THEIR MEDICAL STUDIES AFTER 1ST OCTOBER 1892.

For those who commenced Medical Studies before 1st October 1892, see Regulations B, page 597.

I. Four Degrees in Medicine and Surgery are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). The Degree of Bachelor of Surgery is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine, and the Degree of Bachelor of Medicine is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Surgery.

II. Subject to Regulations to be made from time to time by the University Court, the University may also confer Diplomas in Special Branches of Medical and Surgical Practice on Graduates of the University in Medicine and Surgery.

PRELIMINARY EXAMINATION.[1]

III. Before commencing his medical studies, each student must pass a Preliminary Examination in (1) English, (2) Latin, (3) Elementary Mathematics, and (4) Greek or French or German: Provided always that, in the case of a candidate whose native language is not English, an examination in the native language of the candidate may be substituted for one in either French or German, and an examination in any other classical language for one in Latin or Greek.

IV. The extent and standard of the Preliminary Examination is determined by the Joint Board of Examiners constituted under Ordinance, General, No. 8 [Regulations as to Examinations], in accordance with the terms of that Ordinance.

V. The Preliminary Examination is conducted in accordance with

[1] See also pages 579-582.

the provisions of Ordinance, General, No. 8 [Regulations as to Examinations];—and, subject to the provisions of the immediately succeeding section hereof, the entire examination must be passed at one and the same time, except in the case of students who, prior to the date at which these Regulations came into operation, had passed a portion of the Preliminary Examination of the University, or of a Preliminary Examination recognised by the University.

VI. A Degree in Arts, or in Science (not being a Degree *honoris causa tantum*), in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court, exempts from the Preliminary Examination; and the Joint Board of Examiners appointed under the provisions of Ordinance, General, No. 8 [Regulations as to Examinations], has power to determine what examinations, other than those for the degrees hereinbefore mentioned, shall be accepted either in whole or in part in place of the Preliminary Examination.

PROFESSIONAL EDUCATION.[1]

VII. Candidates are admitted to the Degree of Bachelor of Medicine and Bachelor of Surgery only after they have fulfilled the following conditions:—

1. The candidate must have been engaged in Medical study for at least five years.
2. In each of the first four years the candidate must have attended at least two courses of instruction, in one or more of the subjects of study specified in sub-section 4 hereof—each Course extending over a session of not less than five months, either continuous or divided into two terms; or, alternatively, one such Course, along with two Courses, each extending over a session of not less than two and a half months.
3. During the fifth or final year the candidate must be engaged in Clinical study for at least nine months at the Royal Infirmary, Edinburgh, or at one or more of such Public Hospitals or Dispensaries, British or Foreign, as may be recognised for the purpose by the University Court.
4. The Candidate must, during his Curriculum, have attended a Course or Courses of instruction in each of the following subjects of study, including such Examinations as may be prescribed in the various Classes, viz.:—

1. ANATOMY, ...	During a Course of not less than Five Months.

[1] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 Lectures, or 50 Lectures, in conformity with the requirements of this section. Three Months Courses on Materia Medica, Pathology, and Midwifery do not qualify.

2. Practical Anatomy, ...	During two Courses of not less than Five Months each.[1]
3. Chemistry, ...	During Courses of not less than Five Months.
4. Materia Medica and Therapeutics, .	
5. Physiology or Institutes of Medicine,	
6. Practice of Medicine, ...	
7. Surgery, ...	
8. Midwifery, and the Diseases peculiar to Women and Infants. Two Courses of Midwifery, of Three Months each, provided different departments of Obstetric Medicine be taught in each of the Courses, are reckoned equivalent to a Course of not less than Five Months, ...	
9. Pathology, ...	
10. Practical Chemistry, ...	During Courses of not less than Two and a half Months.
11. Physics (including the Dynamics of Solids, Liquids, and Gases, and the Rudiments of Sound, Heat, Light, and Electricity), ...	
12. Elementary Botany, ...	
13. Elementary Zoology, ...	
14. Practical Physiology, ...	
15. Practical Pathology, ...	
16. Medical Jurisprudence and Public Health, ...	

Provided always in so far as regards the University of Edinburgh that—

(*a*) It is the duty of the Senatus to determine from time to time the number of meetings of which such Courses shall consist, and in what cases two half Courses shall be deemed equivalent to a full Course; and to report the determination to the University Court for its approval.

(*b*) It is the duty of the Professors and Lecturers to submit to the Senatus annually at the end of the Winter Session a scheme specifying what proportion of the Courses shall be devoted to Lectures, Practical Demonstrations, Examinations, and Tutorial Work respectively. The Senatus must transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(*c*) The University Court will not grant or continue recog-

[1] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for Examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

nition to any institutions or teachers unless it is satisfied that their Courses of Instruction are equivalent to the Courses sanctioned in the Universities of Scotland.

5. The Candidate must have attended for at least three years the Medical and Surgical Practice either of the Royal Infirmary, Edinburgh, or of a General Hospital elsewhere, which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons, and is recognised for the purpose by the University Court.[1]
6. The Candidate must have attended Clinical Surgery during a Course or Courses extending over not less than nine months. These Courses may be conducted by the Professor of Clinical Surgery, or by Professors or Lecturers appointed for the purpose by the University Court, or by the Ordinary Surgeons of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
7. The Candidate must have attended Clinical Medicine during a Course or Courses extending over not less than nine months. These Courses may be conducted by Professors of the University, or by Lecturers appointed for the purpose by the University Court, or by the Ordinary Physicians of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
8. The Candidate must have attended a course of instruction in Mental Diseases of such duration, and so apportioned between lectures, demonstrations, and clinical instruction, as the Senatus, with the approval of the University Court, may from time to time determine.
9. The Candidate must have attended a Course of twenty-five meetings on Practical Pharmacy in a University or recognised School of Medicine, or have dispensed drugs for a period of three months in an Hospital or Dispensary, or in an establishment recognised by the Pharmaceutical Society.
10. The Candidate must have attended, for at least six months, by apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, or of a Physician or Surgeon, or of a Member of the London or Dublin Society of Apothecaries. He must have acted as Clerk in the Medical and Dresser in the Surgical Wards of a Public Hospital; and must also have availed himself, to such an extent as may be required by the Senatus, with the approval of the University Court, of opportunities of studying, at an Hospital or Dispensary, *post-mortem* Examina-

[1] The following hospital has been recognised under this section :—North Staffordshire Infirmary and Eye Hospital, Hartshill, Stoke-upon-Trent, 1893.

tions, Fevers, Diseases of Children, Ophthalmology, or such other special departments as may from time to time be determined.

11. The Candidate must have attended, under the superintendence of a registered Medical Practitioner, twelve cases of labour, or such additional number as the Senatus, with the sanction of the University Court, may from time to time determine; or have attended for three months the practice of a Lying-in Hospital, or of the Maternity Department of a General Hospital or other Public Charitable Institution, and have conducted personally six, or such an additional number of cases of labour as the Senatus, with the approval of the University Court, may from time to time determine.
12. The candidate must have been properly instructed in Vaccination at a Public Vaccination Station, by a Public Vaccinator, authorised by the proper Government Authority to grant Certificates of Proficiency in Vaccination.[1]
13. No candidate for a degree will be deemed to have attended a class as part of the Curriculum necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

VIII. With respect to the Places and Institutions at which the studies of the candidate may be prosecuted, the following Regulations have effect:—

1. Two of the five years of medical study must be spent in the University of Edinburgh, each year of study including always the attendances specified in section VII., sub-section 2.
2. The remaining three years may be spent in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court, each year of study during the first four years including always the attendances specified in section VII., sub-section 2.
3. Of the subjects of study specified in section VII., sub-section 4, not less than eight must be taken in the University of Edinburgh, or (subject always to the provisions as to attendance contained in the immediately preceding sub-sections) in some other University of the United Kingdom, or in some Foreign or Colonial University entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court, or in a College incorporated with, or affiliated to a University, entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court: Provided always that

[1] Recognised Vaccine Departments in Edinburgh are:—The Royal Public Dispensary, 21 West Richmond Street — *Vaccinator*, Dr Husband; the Western Dispensary, 90 Fountainbridge—*Vaccinator*, Dr J. B. Buist.

where in any of said subjects of study two or more Courses are required, the taking of one of those Courses will constitute a taking of the subject for the purpose of this sub-section.

4. The remainder of such subjects of study may (subject always as aforesaid) be taken in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court.
5. All Candidates, not Matriculated Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.
6. The Fee for attendance, for purposes of graduation, on the Courses of instruction of recognised Extra-Academical Teachers in Edinburgh, must be not less than the amount exigible for the corresponding Courses in the University.
   [*The fee must be paid at the commencement of the Course.*]
7. The University Court will not recognise as qualifying for examination in any of the subjects specified in section VII., sub-section 4, the class of any teacher who is at the time a teacher of more than one of the said subjects, except in those cases where Professors in the University are at liberty to teach the two subjects: Provided always that a Professor or other Teacher in any endowed public College or Institution, who, by the terms of his appointment, is required to teach more than one subject of Medical Study therein, may be recognised under sub-section 2 of this section as a Teacher of any one of the subjects which he teaches.
8. A Teacher, attendance on whose course of instruction, before the date of the approval of these Regulations by Her Majesty in Council, had been recognised for the purposes of graduation in the University, is not required to obtain a new recognition from the University Court; and attendance on the course of instruction of every such Teacher may continue to be recognised as heretofore.
9. It is in the power of the University Court, if it sees cause, at any time to withdraw or suspend any recognition which it may have granted.

IX. In the University of Edinburgh it is the duty of the Professors of the subjects specified in section VII., sub-section 4 hereof (except Practical Anatomy and such other subjects as the Senatus, with the approval of the University Court, may from time to time determine), so to conduct the Courses that Students may receive instruction sufficient for graduation in any one of the said subjects by attendance on one

Course of five or six months, or of two and a half or three months as the case may be.

X. If any Candidate, before presenting himself for his Preliminary Examination, has attended in any University of the United Kingdom, or in any University or Institution specially approved, or under any Teacher specially recognised for the purpose by the University Court, a Course or Courses of instruction in Physics, Chemistry, Botany, or Zoology, equivalent in the judgment of the Senatus to the qualifying Course in the same subject in the University of Edinburgh, such attendance will (notwithstanding anything hereinbefore stipulated) be held as entitling him to be examined in these subjects; and if the Candidate has attended such Course or Courses in each of the said subjects, he will be held to have completed his first year of Medical Study: Provided always that the evidence of such attendance at such equivalent Course or Courses must be presented to the Senatus at the time when the Candidate presents himself for his Preliminary Examination; and the Senatus will, if satisfied, grant a certificate to that effect.

PROFESSIONAL EXAMINATION FOR THE DEGREES OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY.

XI. Each candidate is examined, both in writing and orally, and also clinically where the nature of the subject admits, in the following divisions, viz. :—*First*, in Botany, Zoology, Physics, and Chemistry; *Second*, in Anatomy, Physiology, and Materia Medica and Therapeutics; *Third*, in Pathology, and Medical Jurisprudence and Public Health; *Fourth*, in Surgery and Clinical Surgery, Practice of Medicine and Clinical Medicine, and Midwifery.

In subjects which admit of practical instruction, the examination will be such as to test the practical acquirements of the candidate.

Provided always that if a candidate have obtained in a University of the United Kingdom, or other University specially recognised for the purpose by the University Court, a Degree in Science or in Arts, granted in either case after a course of study and an examination in Botany, Zoology, Physics, and Chemistry, he will be held to have passed his examinations in the said subjects.

XII. Candidates who profess themselves ready to submit to an examination in the subjects comprised in the first division, viz., Botany, Zoology, Physics, and Chemistry, may be admitted to examination in all or any two of these subjects at any examination held after they have attended a full Course in each of the subjects professed.

XIII. Candidates who have passed their examinations in the subjects comprised in the first division may be admitted to examination in the second division at the end of the third winter session.

Provided that candidates who so desire may postpone their examina-

tion in Materia Medica and Therapeutics until the close of the summer session following.

XIV. Candidates who have passed their examinations in the subjects comprised in the first and second divisions may be admitted to examination in the third division at the end of the fourth winter session.

Provided that candidates who so desire may postpone their examination in Medical Jurisprudence and Public Health until the close of the summer session following.

XV. Candidates who have passed their examinations in the subjects comprised in the first, second, and third divisions may be admitted to examination in the fourth or final division, when they have completed the fifth year of study.

XVI. If any candidate at these examinations be found unqualified in one or more subjects, he will not again be admitted to examination unless he has pursued his medical studies for such time, and subject to such conditions, as the Faculty of Medicine may prescribe.[1]

XVII. If any candidate at these examinations be found to have passed in one or more subjects with sufficient merit, he will not be liable to re-examination in such subject or subjects, although he may have been found unqualified in a subject or subjects comprised in the same division as hereinbefore specified.

XVIII. Every candidate must deliver,[2] on or before such day as the Senatus may from time to time determine, to the Dean of the Faculty of Medicine, a declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have completed it on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

XIX. After the candidate has satisfied the Examiners, the Dean of the Faculty of Medicine lays the proceedings before the Senatus, by whose authority the candidate will be admitted, on such day as the Senatus may from time to time appoint, to the Degrees of Bachelor of Medicine and Bachelor of Surgery, on payment of the required fees.

XX. Candidates for graduation must produce evidence of their having conformed to the Regulations which were in force at the time they commenced their Medical Studies, except in so far as is provided in section XXV. hereof.

PROFESSIONAL EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE.

XXI. 1. Subject to the conditions hereinafter specified, the Degree of Doctor of Medicine is conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Bachelor of Surgery of the University of Edinburgh, and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to having re-

[1] Satisfactory Certificates must be produced as evidence of study.

[2] On or before the date for lodging Certificates, &c., for the fourth division of the Examinations. See page 592.

ceived the Degrees of Bachelor of Medicine and Bachelor of Surgery, for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in Practice other than Practice restricted to Surgery.

2. Each candidate for the Degree of Doctor of Medicine is required to pass an examination in Clinical Medicine and in such of its special departments as the Senatus, with the approval of the University Court, by Regulations framed from time to time, may determine ; and he may present himself for examination in Clinical Medicine at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.
3. Each candidate for the Degree of Doctor of Medicine must submit for the approval of the Faculty of Medicine a Thesis, on any branch of knowledge comprised in the second, third, or fourth examinations for the Degrees of Bachelor of Medicine and Bachelor of Surgery, which he may have made a subject of study after having received those Degrees, excepting subjects which are exclusively Surgical ; and the Thesis, accompanied by a declaration signed by the candidate, that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]
4. A Bachelor of Medicine and Bachelor of Surgery, who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to the examination in Clinical Medicine at any period of examination after he has received such Degrees ; but the Degree of Doctor of Medicine will not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of Bachelor of Medicine and Bachelor of Surgery, he has been engaged for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively surgical, and unless his Thesis, in the judgment of the Faculty of Medicine, is of exceptional merit.

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only, and it must be lodged on or before 30th April of the year in which the Candidate proposes to graduate.

PROFESSIONAL EXAMINATION FOR DEGREE OF MASTER OF SURGERY.

XXII. 1. Subject to the conditions hereinafter specified the Degree of Master of Surgery will be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Bachelor of Surgery of the University of Edinburgh, and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to his having received the Degrees of Bachelor of Medicine and Bachelor of Surgery, for at least one year in attendance in the Surgical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in practice other than practice restricted to Medicine.

2. Each candidate for the Degree of Master of Surgery is required to pass an examination in the following subjects:—Surgical Anatomy, Operations upon the dead body, and Clinical Surgery, and in such of the special departments of Clinical Surgery as the Senatus, with the approval of the University Court, by Regulations framed from time to time, may determine; and he may present himself for examination in these subjects at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.

3. Each candidate for the Degree of Master of Surgery must submit, for the approval of the Faculty of Medicine, a Thesis on any branch of knowledge comprised in the second, third, or fourth Examinations for the Degrees of Bachelor of Medicine and Bachelor of Surgery, which he may have made a subject of study after having received those Degrees, excepting subjects that are exclusively medical; and the Thesis, accompanied by a declaration signed by the candidate that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]

4. A Bachelor of Medicine and Bachelor of Surgery who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such Degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to examination in the subjects specified in sub-section 2 of this section at any period of examination after he has received such Degrees; but the Degree of Master of Surgery shall not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of Bachelor of

[1] See footnote, page 576.

Medicine and Bachelor of Surgery, he has been engaged for at least one year in attendance in the Surgical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively medical, and unless his Thesis in the judgment of the Faculty of Medicine is of exceptional merit.

FEES.

XXIII. The fee for the Degrees of Bachelor of Medicine and Bachelor of Surgery is twenty-two guineas, and the proportion of this sum to be paid by a candidate at each division of the examination is regulated from time to time by the University Court. The fee to be paid for the Degree of Doctor of Medicine is ten guineas, exclusive of any stamp duty which for the time may be exigible. The fee to be paid for the Degree of Master of Surgery is ten guineas.

EXAMINERS.

XXIV. The Examiners for graduation in Medicine in the University of Edinburgh are the Professors in that University, together with such Lecturers in the University and such additional Examiners, to be appointed by the University Court, as the University Court may deem necessary. Provided that the Court may make such provisions as will ensure that every Candidate is examined in each subject by at least two Examiners, of whom one shall not be a Professor or Lecturer in the University. The examinations are conducted under regulations framed by the Senatus, subject to the approval of the University Court.

DATE OF COMING INTO EFFECT.

XXV. Every student who began his Medical Studies before the date (1st October 1892) when these Regulations came into operation is entitled to graduate under the system in force before or after that date, according as he may comply with the Regulations in force in the University before or after that date.

PRELIMINARY EXAMINATION.

(*See Sections III. to VI. inclusively, pages* 568 *and* 569, *and dates of Entering, &c., and Time-Table of Examinations, pages* 583 *and* 584.)

Before commencing his medical studies, each student shall pass a Preliminary Examination in (1) English, (2) Latin, (3)

Elementary Mathematics, and (4) Greek or French or German: Provided always that, in the case of a candidate whose native language is not English, an examination in the native language of the candidate may be substituted for one in either French or German, and an examination in any other classical language for one in Latin or Greek.

The Joint Board of Examiners issue from time to time to the Examiners of each University such general directions as to the character of the Preliminary Examination papers to be set, as may best secure an adequate and uniform standard.

SUBJECTS OF THE PRELIMINARY EXAMINATION; AND EXAMINATIONS ACCEPTED AS EQUIVALENTS, ISSUED BY THE JOINT BOARD, 31ST JANUARY 1894.

The Joint Board have directed that the Preliminary Examination for Degrees in Medicine shall be as follows:—

Preliminary Examination in Medicine.

For the Medical Preliminary Examination, the papers set in Latin, Greek, and Mathematics, shall be the same as those set on the Lower Standard in these subjects in the Arts and Science Preliminary Examination. See pages 128-132, and 184.

The papers set in English, French, and German are of a Lower Standard than those set in these subjects in the Arts and Science Preliminary Examination. See papers for 1893-94, pages 650-663.

It shall be in the option of any candidate for the Medical Preliminary to take the papers set on the Higher Standard for the Arts Preliminary in any of the subjects.

Excellence in one or more subjects will be permitted to compensate in some measure for deficiency in any of the other subjects. Such excellence may be shown either by attaining a high percentage of marks on the Lower Standard, or by passing on the Higher Standard.

Candidates who, having taken English, Latin, Greek, Mathematics, or a Modern Language, on the Higher Standard, as prescribed by the Arts Ordinance for the Arts and Science Preliminary, have obtained a satisfactory percentage of marks, shall be held to have passed the Medical Preliminary in these subjects, provided that all the subjects required by the Regulations of the General Medical Council are taken at the same time.

EXAMINATIONS ACCEPTED AS EQUIVALENTS FOR THE PRELIMINARY IN MEDICINE: Provided always that the Regulations of the General Medical Council regarding the Registration of Students of Medicine be complied with.

1. In terms of the Medical Ordinances, "a Degree in Arts or in Science (not being a Degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, shall exempt from the Preliminary Examination."

2. Any Candidate who produces a Certificate of having passed the Preliminary Examination in Arts or Science in any Scottish University, either at the University Examination or through the Leaving Certificates of the Scotch Education Department, or partly at the University Examination, and partly through the Leaving Certificates, shall be held to have passed the Preliminary Examination for Medicine, provided that the Examination has included the specified subjects of General Education as required under the Regulations of the General Medical Council.

3. A Candidate who has obtained the Leaving Certificate (Honours or Higher Grade) of the Scotch Education Department in any subject recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

The Regulation that all the subjects of the Examination shall be passed at one and the same time shall not be held to apply to either of the above cases, 2 and 3. But Candidates complying with these Rules (2 and 3) must obtain a University Certificate specifying the Examinations passed by them which have been accepted as equivalents to the Preliminary, and must present said Certificate to the Medical Registrar in order to registration.

Further, each such Candidate when applying for said Certificate must, if he has not entered for any part of the Preliminary, produce a Matriculation Card from some one of the Scottish Universities.

4. For the Preliminary Examination in Medicine, in April 1894, the Leaving Certificate in any Grade of the Scotch Education Department will be accepted in each subject as equivalent to the Preliminary Examination, subject to the regulation of the General Medical Council that all the four subjects required have been passed at the same time, except in so far as that regulation is modified by proviso (*b*), already referred to, and by the above rules, 2 and 3, of the Joint Board that give effect to that proviso. The Board have reserved for consideration what certificates will be accepted in English and Modern Languages,

after April 1894, as equivalent to the Preliminary Examination in Medicine in these subjects.

No Examinations conducted in Scotland, other than those of the Scotch Education Department, will be accepted as equivalent to the Preliminary Examinations in Medicine.

5. *Oxford.*—Responsions; Moderations.

Cambridge.—Previous Examination; Oxford and Cambridge Schools Examinations.

London.—Matriculation Examination of the University of London.

Dublin, Trinity College.—Public Entrance Examination.

Royal University of Ireland.—Entrance Examination.

Victoria University.—The Preliminary Examination; the Entrance Examination in Arts.

6. The Examinations of Indian, Colonial, and Foreign Universities and Colleges accepted by the General Medical Council will also be accepted, viz. :—

University of (1) *Calcutta*, (2) *Madras*, and (3) *Bombay.*—Entrance Examination, Certificate to include Latin.

Universities of (1) *M'Gill College, Montreal;* (2) *Bishop's College, Montreal;* (3) *Toronto;* (4) *Trinity College, Toronto;* (5) *Queen's College, Kingston;* (6) *Victoria College, Upper Canada:* (7) *Halifax, Nova Scotia;* and (8) *Fredericton, New Brunswick*, Matriculation Examination.

University of Mount Allison College, New Brunswick.—Examination for a Degree in Arts.

University of King's College, Nova Scotia. — Matriculation Examination; Responsions.

Dalhousie College and University, Halifax.—Matriculation and Sessional Examinations.

Western University of Ontario.—Entrance Examination in Medicine, Certificate to include all the subjects required for Registration.

University of Manitoba.—Previous Examination.

College of Physicians and Surgeons of Ontario.—Preliminary Examinations, Certificate to include all the subjects required for Registration.

Provincial Medical Board of Nova Scotia. — Matriculation Examination.

University of Melbourne.—Matriculation Examination.

University of Sydney.—Matriculation Examination.

University of the Cape of Good Hope.—Matriculation Examination; Examination for a Degree in Arts.

University of Adelaide.—Matriculation Examination; or its substitute, the Senior or Junior Public Examination, Certificate to include all the subjects required for Registration.

Codrington College (Barbados).—English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur."

Tasmanian Council of Education.—Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.

University of New Zealand.—Entrance Examination.

University of Otago.—Preliminary Examination.

Christ's College, Canterbury, New Zealand.—Voluntary Examinations, Certificate to include all the subjects required for Registration.

Ceylon Medical College.—Preliminary Examination (Primary Class).

Germany and other Continental Countries.—Gymnasial Abiturienten-Examen, and corresponding Entrance Examinations to the Universities.

7. In the case of Candidates for the Medical Preliminary Examination, who hold qualifications from Foreign or Colonial Bodies, other than Universities, whose certificates are not included in the list of Equivalent Examinations issued by the Joint Board, a Committee in each University, consisting of the Deans of the Faculties of Arts, Science, and Medicine, are empowered to accept such certificates, if they deem them sufficient, provided that all such cases are reported to the Joint Board at their meeting next following.

M. C. TAYLOR,
Convener.

Revised 31st January 1894.

DATES OF ENTERING FOR PRELIMINARY EXAMINATION AND OF PAYMENT OF FEES.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates who intend to present themselves for Examination may obtain Schedules at the Office of the Faculty of Medicine, University New Buildings. The Schedules must be completed and lodged and the fees paid at the Matriculation Office, University (Old) Buildings, not later than 21st September 1894 and 20th March 1895 for the autumn and spring Examinations respectively.

Candidates who cannot attend personally to pay the fees should transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered nor Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to have entered for the Examination until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

TIME-TABLE FOR PRELIMINARY EXAMINATIONS FOR 1894-95.

			Medical Preliminary Examinations.	Arts and Science Preliminary Examinations.
1894.				
Sept.	29	Sat.	English, 9-11, 12-2 Greek, 3-6 Do., 3-5[1]	English, 9-11, 12-2 Lower Greek, 3-6
Oct.	1	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12 Lower Mathematics, 2-5
,,	2	Tu.	French, 3-6 Do., 3-5[1]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30
,,	3	Wed.	German, 3-6 Do., 3-5[1]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30
,,	4	Th.	Higher Mathematics, 9-11, 12-1.30[1] Logic, 2-4[1]	Intermediate Mathematics, 9-11, 12-1.30 Higher Mathematics, 9-11, 12-1.30 French, 2nd paper, 3-5
,,	5	Fri.	Moral Philosophy, 9-11[1] Mechanics, 1-4[1]	German, 2nd paper, 9-11 Dynamics, 1-4
,,	6	Sat.	Natural Philosophy, 9-11[1]	... ...

[1] For Students completing the Examination under the Old Regulations.

		Medical Preliminary Examinations.	Arts and Science Preliminary Examinations.
1895.			
Mar. 30	Sat.	English, 9-11, 12-2 Greek, 3-6 Do., 3-5[1]	English, 9-11, 12-2 Lower Greek, 3-6
Apr. 1	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12 Lower Mathematics, 2-5
,, 2	Tu.	French, 3-6 Do., 3-5[1]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30
,, 3	Wed.	German, 3-6 Do., 3-5[1]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30
,, 4	Th.	Higher Mathematics, 9-11, 12-1.30[1] Logic, 2-4[1]	Intermediate Mathematics, 9-11, 12-1.30 Higher Mathematics, 9-11, 12-1.30 French, 2nd paper, 3-5
,, 5	Fri.	Moral Philosophy, 9-11[1] Mechanics, 1-4[1]	German, 2nd paper, 9-11 Dynamics, 1-4
,, 6	Sat.	Natural Philosophy, 9-11[1]	... ...

REGULATIONS AS TO CLASS EXAMINATIONS.

With a view to promote the Educational interests of the students during the time they are occupied with the respective subjects in the Classes, the Senatus recommend :—

1. That there should be at least two Special Class-Examinations in the Classes in the Faculty of Medicine during each Session, conducted by means of questions and written answers, without aid from books or notes.

2. That in the event of a student gaining 75 per cent. or more of the available marks in any department, he shall obtain a Certificate in the First Class of Honours.

3. That in the event of a student gaining 50 per cent. or more, but less than 75 per cent., of the available marks in any department, he shall receive a Certificate in the Second Class of Honours.

University Bronze Medals are also given for Competitive Class Examinations.

[1] For Students completing the Examination under the Old Regulations.

CERTIFICATES OF ATTENDANCE ON CLASSES IN THE FACULTY OF MEDICINE.

The Senatus Academicus have resolved that the Certificates of Attendance to be granted to students in the Faculty of Medicine shall be regulated in the following manner :—

Each Professor shall ascertain the presence of his pupils at least twenty-six times in a Course of six months' duration, and thirteen times in a Course of three months' duration.

Those who have been absent twelve or more times in a six months' Course, or six or more times in a three months' Course, or have not duly performed the work of the Class, including any Examinations that may be held, shall not be entitled to any Certificate.

The following is the form of Certificate which must be adopted in all cases :—

"I certify that Mr attended my Course of Instruction on during the Session ; that he was present on of the occasions on which attendance was ascertained ; and that he duly performed the work of the class."

Exceptions will be admitted in the case of those who may be absent from sickness or other unavoidable causes, the particulars of which must be stated to the Professor in writing, accompanied with certificates. All excuses for non-attendance must be given in immediately upon the student returning to his class. But if any student shall have been absent for six weeks or upwards, in a Course of six months, or for three weeks in a Course of three months (whatever the cause of absence may be), his case must be transmitted to the Dean of the Faculty for the decision of the Faculty.

Whenever the student's cause for absence shall be admitted by the Professor or by the Faculty, the Certificate shall bear that he "attended," and shall state the amount of the irregularity and the nature of the excuse.

FIRST PROFESSIONAL EXAMINATION.

The Faculty of Medicine have resolved that the written and oral examinations on Chemistry, Elementary Botany, Elementary Zoology, and Physics shall be restricted in the following manner :—

1. *Chemistry.*—Chemical changes as distinguished from physical changes. Elements ; compounds ; mixtures. Laws of chemical combination by weight and by volume. The atomic theory. Atoms ; molecules. Law of Avogadro. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit.

Chemical Notation—Symbols ; formulæ ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds ; especially the compounds of oxygen, of hydrogen, and of chlorine with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds ; especially those with oxygen, with chlorine, and with sulphur : Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts : the ammonium salts ; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron. Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, wrought-iron, steel, white lead.

Classification of Carbon Compounds. Marsh Gas and its Homologues. Chloroform. Methylic and Ethylic Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Oxalic Acid, Lactic Acids. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists :—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c. :—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder,

Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids*—Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test papers :—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

2. *Elementary Botany.*—The characteristic features of the following groups and classes of the vegetable kingdom :—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology. The life-history of the following plants :—Bacterium, Saccharomyces, Mucor, Vaucheria, Eurotium, Funaria, Aspidium, Pinus, Scilla, Helianthus, Ulmus ; and the characters of plants belonging to the following natural orders of Phanerogamæ :—Coniferæ, Gramineæ, Orchideæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ, Umbelliferæ, Rosaceæ, Leguminosæ, Cruciferæ, Ranunculaceæ.

3. *Elementary Zoology.*—(*a*) The General Principles of Biology.

(*b*) The structure, habits, &c., of *Amœba*, *Paramœcium*, *Hydra*, *Arenicola*, *Hirudo*, Anodon, *Helix*, *Nephrops*, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups, and the structure, habits, &c., of Myxine, *Raia*, *Rana*, *Columba*, Ornithorhynchus, Macropus, *Lepus*, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis (skull only), Balæna, Vespertilio, and Troglodytes.

(*e*) A general knowledge of the orders of Mammalia.

(*f*) The life-histories of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The outlines of the development of Amphioxus, Scyllium, and Rana, and of the fœtal appendages of Gallus and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

The Practical Examination will be confined to the types in italics (*b*) and (*c*).

4. *Physics.*—(*a*) Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

(*b*) Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with the Physical Measurement of Time.

(*c*) Sound and Wave-propagation in general, Intensity, Pitch and Quality of Musical Sounds, Harmonics, Concords, &c.

(*d*) Heat, its Nature, Effects, Measurement, Transference and Transformations—Measurement of Temperature and of absolute Temperature, Thermodynamics.

(*e*) Light (1), Geometrical Optics, Speed of Light, Laws of Reflection and Refraction, Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes, Images, Conditions of Distinct Vision. (2) Physical Optics—Interference, Dispersion, Diffraction, Double Refraction, Polarisation, Spectrum Analysis.

(*f*) Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto-Electricity, Electro-Dynamics and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

HONOURS AT PROFESSIONAL EXAMINATIONS.

Candidates who have displayed special merit at any of the Professional Examinations will be announced as having passed that Examination "with distinction."

Candidates who have displayed special merit at each of the Professional Examinations will be announced, at the time of the Graduation, as having obtained FIRST or SECOND CLASS HONOURS, according to the merit that has been displayed.

SPONSIO ACADEMICA TO BE SIGNED BY GRADUATES IN MEDICINE.

Ego Doctoratus in Arte Medica titulo jam donandus, sancte coram Deo cordium scrutatore, spondeo, me in omni grati animi officio erga Universitatem Academicam Edinburgensem ad extremum vitæ halitum perseveraturum.

Tum porro Artem Medicam caute, caste, probeque exercitaturum, et quoad potero, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum. Quæ, denique, inter medendum visa vel audita sileri conveniat, non sine gravi causa vulgaturum.

Ita præsens spondenti adsit Numen.

FEES FOR DEGREES IN MEDICINE AND SURGERY UNDER THE NEW REGULATIONS.

FEES FOR M.B. AND CH.B.

Fee for the First Division of the Examination, viz., Botany, Zoology, Physics, and Chemistry . .			£6 6 0
or			
For any two of the subjects . .	£3 3 0		
For the other two subjects . .	3 3 0		
For the Second Division, viz., Anatomy, Physiology, and Materia Medica and Therapeutics . . .			6 6 0
or			
For Anatomy and Physiology . .	£4 4 0		
For Materia Medica and Therapeutics	2 2 0		
For the Third Division, viz., Pathology, and Medical Jurisprudence and Public Health			4 4 0
For the Final Division, viz., Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery			6 6 0
			£23 2 0

Candidates who fail to pass either in the whole or in one or more of the subjects in any of the divisions of the Examination, pay £1, 1s. for each subject in which they have failed before they can be re-admitted to Examination in that subject.

Candidates who, under the proviso in Section XI. of the Regulations, are exempted from the first division of the Examination, are required, after passing the final division of the Examination, to pay a fee of £6s, 6s. before they can be admitted to the Degrees of Bachelor of Medicine and Bachelor of Surgery.

Fee for M.D.	£10 10 0
Government Stamp-Duty (for M.D. only), . .	10 0 0
Total for M.D.	£20 10 0
Fee for Ch.M.	£10 10 0

Every Candidate for Examination or for Graduation is required to be a Matriculated Student of the year in which he appears for Examination or Graduation.

Every Candidate for Graduation is also required to pay the fee of £1 for Registration as a Member of the General Council, if not already a Member.

N.B.—The above Fees include all charges for the Diplomas, and Graduates are requested to apply personally for their Diplomas at the

Matriculation Office between 12 and 4 on the day of graduation. Any Graduate who cannot appear personally is required to give written authority to some person to receive and give a receipt for his Diploma.

DATES OF EXAMINATIONS, AND FOR PRESENTING CERTIFICATES, AND PAYING FEES FOR DEGREES, &c., UNDER NEW REGULATIONS.

The dates of the Examinations for 1894-95 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

Preliminary Examination.

See Time-Table and Dates of Entering, &c., pages 582-584.

PROFESSIONAL EXAMINATIONS UNDER THE NEW REGULATIONS.

Candidates are required to present their Certificates for the Examinations at the Office of the Faculty of Medicine, University New Buildings, and to pay the fees at the Matriculation Office, University (Old) Buildings.

Candidates, in lodging statements of their Courses of Study with the Dean of the Faculty, will observe that for all Courses and Subjects of Study the Faculty will receive Certificates only as evidence of attendance.

First Professional Examination.[1]

This Examination takes place in March and July. Candidates may be admitted to Examination in all or in any two subjects, after they have attended a full course in each of the subjects professed.

1895.

Mar. 18. Mon. Names to be given in, Certificates shown, and Fees paid for the Examination in March, *on or before* this date.

,, 23. Sat. Practical Chemistry Examination begins at hours to be announced.

Written Examinations.

,, 25. Mon. Chemistry at 10 o'clock; Botany at 1 o'clock.

,, 26. Tu. Natural History at 10 o'clock; Physics at 1 o'clock.

,, 27. Wed. Oral Examinations begin.

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[1] When names are not entered nor fees paid on or before the stated dates, a late entry fee of ten shillings must be paid before the Candidate can be admitted to Examination. A Candidate is not held to have entered for the Examination until his Name is entered, all the necessary Certificates, &c., lodged, and the Fee paid.

July Examinations.

1895.

July 12. Fri. Names to be given in, Certificates shown, and Fees paid *on or before* this date.
,, 20. Sat. Practical Chemistry Examination begins at hours to be announced.
,, 22. Mon. Chemistry at 10 o'clock; Botany at 1 o'clock.
,, 23. Tu. Zoology at 10 o'clock; Physics at 1 o'clock.
,, 24. Wed. Oral Examinations begin.

SECOND PROFESSIONAL EXAMINATION.[1]

This Examination takes place in March and July. Candidates who have passed the First Examination may be admitted to this Examination at the end of their Third Winter Session.

March Examinations.

Mar. 22. Fri. Names to be given in, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.

,, 28. Thur. Anatomy at 10 o'clock; Physiology at 1 o'clock.
,, 29. Fri. Materia Medica and Therapeutics at 10 o'clock.
Oral Examinations begin.

Candidates may postpone their Examination in Materia Medica and Therapeutics until the close of the Summer Session following.

July Examinations.

July 8. Mon. Names to be given in, Certificates shown, and Fees paid *on or before* this date.

Written Examination.

,, 17. Wed. Anatomy at 10 o'clock; Physiology at 1 o'clock.
,, 18. Thur. Materia Medica and Therapeutics at 10 o'clock.
Oral Examinations begin.

THIRD PROFESSIONAL EXAMINATION.[1]

This Examination takes place in March and July, and Candidates who have passed the Second Examination may be admitted to Examination at the end of their Fourth Winter Session.

Mar. 22. Fri. Names to be given in, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.

,, 28. Thur. Medical Jurisprudence and Public Health at 1 o'clock.
,, 29. Fri. Pathology at 1 o'clock.
Oral Examinations begin.

[1] See footnote, page 590.

Candidates may postpone their Examination in Medical Jurisprudence and Public Health until the close of the Summer Session following.

Written Examination.

July 12. Fri. Names to be given in, Certificates shown, and Fees paid *on or before* this date.
,, 17. Wed. Medical Jurisprudence and Public Health at 1 o'clock.
,, 18. Thur. Pathology at 1 o'clock.
,, 19. Fri. Oral Examinations begin.

FOURTH OR FINAL PROFESSIONAL EXAMINATION.[1]

This Examination takes place in May and June, and may be taken when the Candidate has passed the Third Examination, and has completed his Fifth year of Medical Study.

April 17. Wed. Names to be given in, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.

May 2. Thur. Clinical Surgery Examinations begin.
,, 3. Fri. Clinical Medicine Examinations begin.
June 17. Mon. Medicine at 10 o'clock.
,, 18. Tu. Surgery at 10 o'clock; Midwifery at 1 o'clock.
,, 19. Wed. Oral Examinations begin.

DEGREE OF DOCTOR OF MEDICINE.[1]

April 30. Tu. Theses to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examination.

Clinical Medicine. Date to be afterwards announced.

July 15. Mon. Stamp Duty to be paid *on or before* this date.

DEGREE OF MASTER OF SURGERY.[1]

April 30. Tu. Theses to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.

Surgical Anatomy,
Operations on the dead body,
Clinical Surgery. } Dates to be afterwards announced.

July 22. Mon. Names to be given in for Graduation, and the Registration Fee (if not previously registered) paid *on or before* this date.

Aug. 1. Thur. GRADUATION CEREMONIAL at 10 A.M. Graduands to assemble at 9 A.M.

See footnote, page 590.

Information relative to Matriculation and the Curriculum of Study, and the Subjects of Examinations for Degrees in Medicine and Surgery, and for Fellowships, Scholarships, Bursaries, Prizes, &c., &c., may be obtained on application to the Dean of the Faculty of Medicine, University New Buildings.

The fees for Matriculation, for Examinations for Degrees, and for Registration as Member of the General Council of the University, are payable at the *Matriculation Office*, *University* (*Old*) *Buildings*. When Candidates cannot attend personally to pay the fees, they should transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," and not by cheques on private accounts. When a fee is paid by a cheque on a Bank, an additional sixpence is required to be added to meet Bank exchange, unless the cheque be payable in Edinburgh or London.

EXTRA-ACADEMICAL TEACHERS.

REGULATIONS OF THE UNIVERSITY COURT RELATIVE TO CERTIFICATES OF ATTENDANCE GRANTED BY EXTRA-ACADEMICAL TEACHERS.

The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the number of Lectures, or of Meetings for Practical Instruction, in the Course; the number of occasions on which attendance was ascertained; and the number of those occasions on which the Student was present, and in what further respects he duly performed the work of the class. The Certificate should also state the general scope of the Course; and, in particular, in the case of *Chemistry*, that the Course included Organic as well as Inorganic Chemistry; in the case of *Midwifery*, that it included the Diseases of Women and Children; and, in the case of *Practical Materia Medica*, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

LIST OF EXTRA-ACADEMICAL TEACHERS, WHOSE LECTURES QUALIFY FOR GRADUATION IN THIS UNIVERSITY.

ABERYSTWYTH.

		Date of Recognition.
J. Ainsworth Davis, M.A.	Natural History,	28 July 1886.
J. H. Salter, B.Sc.	Botany,	30 Oct. 1893.
H. Lloyd Snape, D.Sc.	Chemistry & Practical Chemistry,	19 March 1888.

BANGOR.

		Date of Recognition.
James J. Dobbie, D.Sc.,	Chemistry & Practical Chemistry,	30 May 1885.
Andrew Gray,	Physics,	26 Oct. 1892.
Reginald W. Phillips, M.A.,	Botany,	30 May 1885.
Philip J. White, M.B.,	Natural History,	9 Dec. 1889.

BIRMINGHAM.

F. J. Allen, M.A.,	Physiology & Practical Physiology,	12 Dec. 1887.
T. W. Bridge, M.A.,	Zoology,	9 July 1883.
W. Hillhouse, M.A.,	Botany,	26 Nov. 1883.
J. H. Poynting, D.Sc.,	Physics,	12 June 1893.
Wm. A. Tilden, D.Sc.,	Chemistry & Practical Chemistry,	9 July 1883.
Bertram C. A. Windle, M.D.,	Anatomy,	17 Nov. 1884. 29 Oct. 1888.

BRISTOL.

G. Munro Smith, L.R.C.P., M.R.C.S.	Physiology & Practical Physiology,	29 Oct. 1888.

(*Certificates for two consecutive Lecture Courses required.*)

CARDIFF.

W. N. Parker, Ph.D.,	Natural History,	28 July 1886.
Claud M. Thompson, M.A., D.Sc.,	Chemistry & Practical Chemistry,	28 July 1886.

(*Lecture Course may be divided between two consecutive Sessions.*)

DUBLIN.

A. C. Haddon, M.A.,	Natural History,	23 Jan. 1888.
Chs. R. C. Tichborne, Ph.D.,	Practical Chemistry,	28 Feb. 1881.

DUNDEE.

William Mair,	Prac. Materia Med.,	12 June 1893.

EDINBURGH.

A. P. Aitken, D.Sc.,	Chemistry & Practical Chemistry,	29 Oct. 1888.
J. O. Affleck, M.D.,	Practice of Physic,	8 Dec. 1879.
Byrom Bramwell, M.D.,	Practice of Physic,	18 Oct. 1880.
J. Macdonald Brown, M.B.,	Anatomy & Practical Anatomy,	18 July 1884.
Alexander Bruce, M.D.,	Pathology & Practical Pathology,	24 January 1887.
Francis M. Caird, M.B., C.M.,	Surgery,	13 August 1886.

EDINBURGH—*continued.*		*Date of Recognition.*
Chas. W. Cathcart, M.B., C.M.,	Surgery,	17 Nov. 1884.
Wm. Craig, M.D.,	Materia Medica & Prac. Materia Med.	14 July 1879.
T. W. Drinkwater, Ph.D.	Chemistry, and Practical Chemistry,	8 March 1880. 14 July 1879.
John Duncan, M.D.,	Clinical Surgery,	28 July 1886.
William Duncan,	Prac. Materia Med.,	12 April 1886.
George A. Gibson, M.D.,	Practice of Physic,	9 Dec. 1889.
E. Sargood Fry, M.B., C.M.,	Prac. Materia Med.,	
F. W. N. Haultain, M.D., F.R.C.P.E.,	Midwifery,	15 June 1891.
Claude F. Henry,	Pract. Materia Med.,	26 Oct. 1892.
J. W. B. Hodsdon, M.D.,	Surgery,	3 August 1888.
Alex. James, M.D.,	Pract. of Physic,	3 August 1888.
Alexander Johnstone,	Botany,	26 Oct. 1892.
J. Falconer King and John Hunter, jointly,	Chemistry & Practical Chemistry,	17 May 1890.
R. F. C. Leith, M.B., B.Sc.,	Pathology, Prac. Pathology,	26 Oct. 1892. 13 June 1892.
H. D. Littlejohn, M.D.,	Med. Jurisprudence,	before 1861.
Stevenson Macadam, Ph.D.,	Chemistry & Practical Chemistry,	before 1861.
W. Ivison Macadam F.R.S.E.,	Chemistry & Practical Chemistry,	23 July 1888.
A. N. M'Alpine, B.Sc.,	Botany,	8 March 1880.
Chas. W. MacGillivray, M.D.,	Surgery,	22 January 1883
J. S. M'Laren, M.B.,	Surgery,	26 Oct. 1892.
Augustus A. Matheson, M.D.,	Midwifery,	15 May 1889.
Alexander Miles, M.D.,	Anatomy and Practical Anatomy,	12 Feb. 1894.
Alexander G. Miller, M.D.,	Clinical Surgery,	3 August 1888.
R. Milne Murray, M.B.,	Midwifery,	13 August 1886.
J. Rymer Paterson, B.Sc.,	Pract. Chemistry, Chemistry,	3 August 1888. 29 Oct. 1888.
D. Nöel Paton, M.D.,	Physiology and Prac. Physiology,	24 Oct. 1887. 19 March 1888.
J. B. Readman, D.Sc.,	Practical Chemistry,	17 Dec. 1888.
William Russell, M.D.,	Pathology & Practical Pathology,	6 August 1887.
Ralph Stockman, M.D.,	Materia Medica & Prac. Materia Med.,	9 Dec. 1889.
Alexis Thomson, M.D.,	Surgery,	30 Oct. 1893.
J. Arthur Thomson, M.A.,	Natural History,	28 July 1886.
Dawson F. D. Turner, M.D.,	Physics,	20 March 1893.
William Wood, M.B.,	Prac. Materia Med.,	15 June 1893.
John Wyllie, M.D.,	Practice of Physic,	20 Dec. 1878.

GLASGOW.

		Date of Recognition.
John Barlow, M.D.,	Physiology,	26 Nov. 1883.
	Prac. Physiology,	8 January 1890.
A. M. Buchanan, M.D.,	Anatomy and Practical Anatomy,	12 Oct. 1874.
H. E. Clark,	Surgery,	12 Feb. 1894.
James Dunlop, M.D.,	Surgery,	12 Oct. 1874.
Samson Gemmell, M.D.,	Practice of Physic,	18 July 1881.
R. T. Kent, F.R.C.S.,	Practical Anatomy,	18 Dec. 1893.
James M. Milne, Ph.D.,	Chemistry & Practical Chemistry,	30 July 1884.
Alexander Napier, M.D.,	Materia Medica,	22 April 1889.
E. E. Prince, B.A., F.L.S.,	Zoology,	15 June 1891.
Alex. Robertson, M.D.,	Practice of Physic,	15 June 1891.
John Lindsay Steven,	Pathology & Practical Pathology,	10 April 1893.

LONDON.

G. B. Howes,	Natural History,	18 July 1887.
T. E. Thorpe, Ph.D., F.R.S.,	Chemistry & Practical Chemistry,	9 Dec. 1889.

NOTTINGHAM.

J. W. Carr, M.A.,	Botany,	16 Jan. 1893.
Frank Clowes, D.Sc.,	Chemistry & Practical Chemistry,	9 Dec. 1889.

OXFORD.

Alfred Willson, Ph.D.,	Pract. Materia Med.,	29 Oct. 1888.

SHEFFIELD.

W. Carlton Williams, B.Sc.,	Chemistry & Practical Chemistry,	26 Nov. 1883.

RIGHTS OF THE GRADUATES IN MEDICINE AND SURGERY OF SCOTLAND ACCORDING TO THE MEDICAL ACT.

Before the passing of the Medical Act of 1858, the Degree of Doctor of Medicine granted by the Universities of Scotland (as the possessor underwent a complete education and examination in all departments of Medicine, Surgery, and Midwifery), qualified

the Graduate to practise every branch of the Medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of Her Majesty's dominions. But according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct Diplomas—one for Medicine and another for Surgery. The Universities were thus compelled, in justice to their Graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit Registration as regularly qualified practitioners in the whole field of their professional education.

The Commissioners under Universities (Scotland) Act of 1889 passed an Ordinance which came into force on 1st October 1892 authorising the University to confer Four Degrees in Medicine and Surgery, viz. : Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.).

The Secretary for War some time ago issued an Order that candidates for admission into the Medical service of the Army should obtain their qualifications in Physic and Surgery from two different sources ; the effect of which would have been to prevent any one University from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single University in Scotland can now qualify candidates for the Military and Naval Services as well as for any other public Medical service in the country.

B.—REGULATIONS FOR GRADUATION IN MEDICINE AND SURGERY, APPLICABLE TO ALL WHO COMMENCED THEIR MEDICAL STUDIES BEFORE 1ST OCTOBER 1892.

Three Degrees in Medicine and Surgery are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine.

These Degrees admit to the General Council of the University, and to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Services in the United Kingdom.

All Candidates must give evidence of having obtained a satisfactory General Education.

PRELIMINARY EXAMINATION.

See Time-Table of Examinations, Dates for Entering and Payment of Fees, &c., pp. 582-584.

I. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, prior to the commencement of their medical study.

II. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an Examination in Arts by any corporate body, whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt, *pro tanto*, from preliminary examination in Arts, on the subjects comprised in the said examination of the said corporate body.[1]

Optional Preliminary Subjects of Examination under the Old Regulations for Bachelors of Medicine who intend to proceed to the Degree

[1] The Dean of the Faculty will give information regarding examinations which exempt from the Preliminary Examination.

of Doctor of Medicine, and for those who commenced the Study of Medicine by attendance on Medical Classes before 1st October 1892, *from Autumn* 1894 *to Spring* 1896 *inclusively.*

Each candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

1. GREEK.—For October 1894 and April 1895: Xenophon, *Memorabilia*, Book II. For October 1895 and April 1896: Xenophon, *Cyropaedia*, Book VII. Some easy sentences of English will be set to be translated into Greek.

2. FRENCH.—For October 1894 and April 1895: Voltaire, *Histoire de Charles XII.*, Books I.-III. For October 1895 and April 1896: Alphonse Daudet's *Le petit Chose*, *première partie* (Hachette & Co.). An easy passage in English will be given for translation into French.

3. GERMAN.—Homann, *Deutsche Märchen*, Nos. 8-14. An easy passage in English will be given for translation into German.

4. HIGHER MATHEMATICS.—The paper in Higher Mathematics may include questions in (1) *Arithmetic*, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) *Algebra*, including Fractions, Factors, Square Roots, Equations of the First Degree, Simultaneous Equations of the First Degree, Quadratic Equations and Problems leading to the above Equations; (3) *Geometry*—Euclid, Books I., II., III., IV. and VI., and the first twenty-one propositions of Book XI. (or their equivalents), with Deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration. *Trigonometry*, to the solution of Triangles, inclusive, and the use of Logarithmic Tables. The proportion of the paper devoted to these subjects respectively shall be, as nearly as possible, two-fifths to *Geometry*, two-fifths to *Algebra* (including Arithmetic), and one-fifth to *Trigonometry.*

Each question in *Geometry* will consist of two parts, of which one will be an easy deduction or illustrative exercise on the proposition set as bookwork.

5. NATURAL PHILOSOPHY.—(1.) Properties of matter—Elasticity, Density, Porosity, Capillarity, &c. (2.) Elementary phenomena of Sound, Light, Heat, Electricity, and Magnetism. Text-Books recommended—Balfour Stewart's *Elementary Physics*, and Tait's *Properties of Matter.*

6. LOGIC.—*Either* (*a*) The Elements of Deductive and Inductive Logic, as in Fowler or Jevons; *or* (*b*) Professor Campbell Fraser's *Selections from Berkeley*, Editor's "Historical Introduction," Author's *Principles of Human Knowledge*, and *Divine Visual Language: A Dialogue.*

7. MORAL PHILOSOPHY.—Professor Calderwood's *Handbook of Moral Philosophy.*

PROFESSIONAL EDUCATION.

IV. No one is admitted to the DEGREES of BACHELOR of MEDICINE and MASTER in SURGERY who has not been engaged in Medical and Surgical study for four years—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than one hundred lectures each, or by one such Course, and two Courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—[1]

1. That he has studied each of the following departments of Medical Science, viz.,

ANATOMY, ...	During Courses including not less than One Hundred Lectures.
CHEMISTRY, ...	
MATERIA MEDICA, ...	
INSTITUTES OF MEDICINE OR PHYSIOLOGY,	
PRACTICE OF MEDICINE, . . .	
SURGERY, ...	
MIDWIFERY, and the DISEASES peculiar to WOMEN and CHILDREN; two Courses of Midwifery, of Three Months each, being reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses, . .	
GENERAL PATHOLOGY, or in Schools where there is no such Course, a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine or Clinical Medicine,	
PRACTICAL ANATOMY, .	A Course of the same duration as those of not less than One Hundred Lectures above prescribed.[2]
PRACTICAL CHEMISTRY, .	Three Months.

[1] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 lectures or 50 lectures, in conformity with the requirements of this section. Three Months' courses on Materia Medica, Pathology, and Midwifery do not qualify.

[2] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

Clinical Medicine, .	Courses of the same duration, as those of not less than One Hundred Lectures above prescribed, or
Clinical Surgery, .	Two Courses of Three Months, Lectures being given at least twice a week.
Medical Jurisprudence, . .	During Courses including not less than Fifty Lectures.
Botany, ...	
Natural History, including Zoology,	

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has attended during a Course of not less than fifty hours' instruction the Class of Practical Materia Medica and Pharmacy in the University of Edinburgh, or a similar class conducted in a University or recognised School of Medicine, or a similar Class conducted at the Laboratory of an Hospital or Dispensary, or elsewhere, by a Teacher recognised by the University Court under Section VI. Sub-section 4; or, that he has been engaged by apprenticeship,[1] for not less than two years, with a Registered Medical Practitioner, or a Member of the Pharmaceutical Society of Great Britain, or a Member of the Pharmaceutical Society of Ireland, or a Pharmaceutical Chemist, or Chemist and Druggist, registered under the provisions of the "Act for regulating the qualifications of Pharmaceutical Chemists, 1852," "The Pharmacy Act, 1868," or "The Pharmacy Act (Ireland), 1875," in the *bona fide* compounding and dispensing of Drugs, and the preparation of their officinal and other Preparations under his superintendence.

4. That he has attended, for at least six months, by apprenticeship or otherwise, the *out-practice* of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.

5. That he has attended at least twelve cases of labour under the superintendence of a registered Medical Practitioner; or that he has attended six such cases, and also has attended for at least three months the practice of a Midwifery Hospital in which practical instruction is regularly given.

6. That he has attended, during courses of not less than fifty hours' instruction, Classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a University or School of Medicine recognised by Sub-sections 2 and 4 of Section VI. of Ordinance No. 8, Edinburgh No. 3, or upon Classes thereof, conducted by a Teacher recognised by the University Court under the said Sub-section 4.

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[1] Apprenticeship, Dispensary or Hospital Practice, Practical Midwifery, and Vaccination, &c., are not reckoned as *Classes* in making up an *Annus Medicus*.

VI. The studies of candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations :—

1. One of the four years of Medical and Surgical study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh, or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital, which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London (including the Professors in the Faculty of Science, in subjects required for graduation, in King's College and University College, London), or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as may from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures as above prescribed.

5. Candidates may, to the extent of Four of the Departments of Medical Study required by Section V., Sub-section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

[Thus, Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools, and the Courses of the Medical Teachers and of the Science Teachers in King's College and in University College, London, in the Subjects of Graduation, are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, when only three months' Courses, are not received as equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the Winter Session. Another *Annus Medicus* by attending either, (*a*), full Winter Courses on any two of the following subjects : Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine ; or (*b*), on one such Course and two three months' Courses on any of the following subjects : Botany, Practical Chemistry,

Natural History, Medical Jurisprudence. If the Student selects the arrangement prescribed in (*a*), attendance on a third Course, although unnecessary to constitute an *Annus*, will also be accepted. The other subjects, and the additional Courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University.

In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy, but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months', recognised Courses.

6. All candidates not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

[*The Fee must be paid at the commencement of the Course.*]

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

9. It is not necessary for any Teacher, attendance on whose Lectures was recognised before 1861 for the purposes of Graduation in the University, to obtain a new recognition from the University Court; and attendance on the Lectures of every such Teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any Teacher or Teachers.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to Graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, [or that he will have completed it on or before the day of Graduation,] and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master. (This declaration, along with a statement of studies, is appended to the Schedule

for the Final Examination, and must be signed before the Schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

PROFESSIONAL EXAMINATIONS.

VIII. Each candidate is examined, both in writing and *viva voce—Firstly*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica [including Practical Pharmacy and Prescribing], and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History Materia Medica and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination in the first division of these subjects may be admitted to examination therein at the first period of examination after they have completed their attendance on the necessary classes: provided always that it shall be lawful for students to proceed to examination in the said subjects under one or more of the following sub-divisions, namely—(*a*) Botany and Natural History, (*b*) Chemistry (including Practical Chemistry), (*c*) Botany and Chemistry (including Practical Chemistry), or (*d*) Natural History and Chemistry (including Practical Chemistry), at the first period of examination after they have completed attendance on the relative classes; and to proceed to examination in the remaining subject or subjects at a subsequent period of examination.

X. Students who have passed their examination on the first division of these subjects, may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus.*

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

[Thus, Candidates for the First Professional Examination, after they have completed attendance on the necessary Classes, may appear for Examination in all the subjects, or they may appear for Examination in one or more of the separate sub-divisions mentioned in Section IX. ; for the Second Professional Examination attendance for three complete *Anni Medici* is required ; and for the Final Professional Examination, four complete *Anni Medici* are required. Qualifying courses must have been attended on all the subjects of each division or sub-division of Examination previously to the Candidate being admitted to examination in that division.]

XIII. If any candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects,[1] either in the University, or in some other School of Medicine.

XIV. After the candidate has satisfied the Medical Examiners, the Dean will lay the proceedings before the Senatus Academicus, by whose authority the candidate will be admitted on the first day of August, or, if that day be Sunday, then on the following day, to the Degrees of Bachelor of Medicine and of Master in Surgery.

XV. The Senatus Academicus, on the day here appointed will assemble at ten o'clock A.M., for the purpose of conferring Degrees ; and no candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his Degree for that year.

XVI. Candidates for Graduation are required to produce evidence of their having conformed to the Regulations which were in force at the time they commenced their Medical Studies.

[1] Satisfactory Certificates must be produced as evidence of such study.

DEGREE OF DOCTOR OF MEDICINE.

XVII. The Degree of DOCTOR OF MEDICINE may be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produced a certificate of having been engaged subsequently to his having received the Degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice:

Provided always that the Degree of Doctor of Medicine shall not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified [Section III.], or unless he shall, before or at the time of his obtaining the Degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the Statutes relative to Preliminary Examination. Two of these must be Greek, and either Logic or Moral Philosophy, and the third must be one of the following subjects at the option of the Candidate—namely, French, German, Higher Mathematics, and Natural Philosophy.

And provided also that the candidate for the Degree of Doctor of Medicine shall submit to the Faculty of Medicine a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degrees of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those Degrees. The Candidate must lodge his Thesis with the Dean on or before 30th April of the year in which he proposes to graduate. No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum for the Bachelor's and Master's Degrees; or else a full digest and critical exposition of the

opinions and researches of others on the subject selected by the Candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.[1]

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D. (under the new Statutes), but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

EXAMINERS.

XVIII. The Medical Examiners for all candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, along with fourteen non-professorial Examiners appointed annually by the University Court.

XIX. The provisions of these Statutes came into operation on the 4th of February 1861.

XX. Persons who began their medical studies before the 4th of February 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

The Regulations regarding Matriculation, Attendance on the necessary Classes, Class Examinations, Vaccination, &c., are the same as under the New Regulations.

FEES FOR DEGREES, &c. (OLD REGULATIONS).

Examination in Botany, Chemistry, Chemical Testing, Natural History, ...	£5 5 0
Examination in Anatomy, Institutes of Medicine, Materia Medica, Prescriptions, Pathology, ...	5 5 0
Final Examination in Surgery, Midwifery, Practice of Physic, Medical Jurisprudence, Clinical Medicine (with Prescriptions), Clinical Surgery, during last Summer Session, ...	£10 10 0
Total Fees for M.B. and C.M. Diplomas, .	£21 0 0

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only.

Additional Fee for M.D. Diploma, ...	£5 5 0
Government Stamp-Duty (for M.D. only), . . .	10 0 0
Total Fees for M.D. Diploma, . . .	£15 5 0
Matriculation Fee, ...	£1 1 0
Fee for Registration as a Member of the University General Council, if not already a Member, . .	1 0 0

In the event of the Candidate failing to pass any one of the Professional Examinations, the Fee is not returned ; but he may appear at one subsequent examination without paying an extra Fee, and at any future examination on paying a Fee of £2, 12s. 6d.

DATES OF EXAMINATIONS, AND FOR PRESENTING CERTIFICATES, AND PAYING FEES FOR DEGREES UNDER OLD REGULATIONS,[1] &c.

Preliminary Examination.

See Time-Table of Examinations, Dates of Entering, &c., pp. 582-584.

The dates of the Examinations for 1894-95 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

PROFESSIONAL EXAMINATIONS UNDER OLD REGULATIONS.

Candidates are required to present their Certificates for Examinations at the Office of the Faculty of Medicine, University New Buildings, and to pay the fees at the Matriculation Office.

Candidates lodging statements of their Courses of Study with the Dean of the Faculty, will observe that for all Courses and Subjects of Study the Faculty will receive Certificates only as evidence of attendance.

First Professional Examination.[1]

1895.

Mar. 18. Mon. Names to be given in, Certificates shown, and Fees paid for the Examination in March *on or before* this date.[1]

,, 23. Sat. Practical Chemistry begins at hours to be announced.

Written Examination.

,, 25. Mon. Chemistry, 10 ; Botany, 1.

,, 26. Tues. Zoology, 10.

,, 27. Wed. Oral Examinations begin.

[1] See footnote, page 590.

1895.

July	12.	Fri.	Names to be given in, Certificates shown, and Fees paid for the Examination in July *on or before* this date.
,,	20.	Sat.	Practical Chemistry begins at hours to be announced. *Written Examination.*
,,	22.	Mon.	Chemistry, 10; Botany, 1.
,,	23.	Tues.	Zoology, 10.
,,	24.	Wed.	Oral Examinations begin.

SECOND PROFESSIONAL EXAMINATION.[1]

Mar.	22.	Fri.	Names to be given in, Certificates shown, and Fees paid for the Examination in March *on or before* this date.
,,	28.	Thur.	Anatomy, 10; Physiology, 1.
,,	29.	Fri.	Materia Medica, 10; Pathology, 1. Oral Examinations begin.
July	8.	Mon.	Names to be given in, Certificates shown, and Fees paid for the Examination in July *on or before* this date.
,,	17.	Wed.	Anatomy, 10; Physiology, 1.
,,	18.	Thur.	Materia Medica, 10; Pathology, 1. Oral Examinations begin.

FINAL PROFESSIONAL EXAMINATION.[1]

April	17.	Wed.	Names to be given in, Certificates shown, and Fees paid *on or before* this date.
May	2.	Thur.	Clinical Surgery Examinations begin.
,,	3.	Fri.	Clinical Medicine Examinations begin.
June	17.	Mon.	Practice of Physic, 10; Medical Jurisprudence, 1.
,,	18.	Tues.	Surgery, 10; Midwifery, 1; Prescriptions, 3.30.
,,	19.	Wed.	Oral Examinations begin.

DEGREE OF M.D.[1]

April	30.	Tues.	Theses to be given in, Certificates shown, and Fees paid *on or before* this date.
July	15.	Mon.	Stamp Duty to be paid *on or before* this date.
,,	22.	Mon.	Names to be given in for Graduation and Registration Fee (if not previously registered) paid *on or before* this date.
Aug.	1.	Thur.	GRADUATION CEREMONIAL at 10 A.M. Graduands are required to assemble at 9 A.M.

THOMAS R. FRASER, M.D.,
Dean of the Faculty of Medicine and Professor of Materia Medica.

See footnote, page 590.

DOCTORS OF MEDICINE

WHO HAVE BEEN AWARDED GOLD MEDALS FOR THEIR THESES FROM 1889 TO 1893, BOTH YEARS INCLUDED.[1]

1889.

Herbert H. Ashdown, England
John W. Ballantyne, Scotland
Arthur J. M'D. Bentley, England
Kenneth M. Douglas, Scotland
Thomas A. Helme, England
Henry Alexis Thomson, Scotland
Joseph Tillie, Scotland
Herbert F. Waterhouse, England

1890.

Joseph Griffiths, Wales
Robert Muir, Scotland
George Edmund Pierez, Ceylon
W. G. A. Robertson, Scotland
Arthur Robinson, England
John David Williams, Wales

1891.

Edmund W. W. Carlier, England
Vaughan Berkeley Harley, England
David Hepburn, Scotland
Alexander Miles, Scotland
James Ritchie, Scotland
George Neil Stewart, Scotland
John Clarence Webster, Canada

1892.

George Sandison Brock, Scotland
Alex. Lockhart Gillespie, Scotland
William Aldren Turner, Scotland
Arthur John Whiting, England
Theodore Stacey Wilson, England

1893.

Francis Darby Boyd, Scotland
James Samuel Risien Russell, Demerara
James Lorrain Smith, Scotland
John Cleasby Taylor, England
William Ernest Francis Thomson, Scotland

DOCTORS OF MEDICINE, WITH THE TITLES OF THEIR THESES, WHO GRADUATED ON 1ST AUGUST 1893.

*** *Obtained Gold Medals for their Dissertations.*

** *Deemed worthy of competing for Gold Medals.*

* *Commended for their Dissertations.*

* Robert Abernethy, Scotland, M.B., C.M., 1888. A Case of Locomotor Ataxia, with a Discussion of some of its Clinical Features and Pathological Anatomy.

* Tom Stevenson Balfour, Scotland, M.B., C.M., 1890. Hæmorrhage from the Uterus before and after Labour.

** John Barrie, Scotland, M.B., C.M., 1884. On Typhoid Fever.

* Walter Leonard Bell, Scotland, M.B., C.M., 1887. Acute Croupous Pneumonia in Children.

5 William Andrew Betts, England, M.B., C.M. (with Second-Class Honours), 1888. The Etiology and

[1] The names of those who received Gold Medals prior to 1859 will be found in the List of Graduates in Medicine of the University of Edinburgh since its foundation, published in 1867, and the names of those who received Gold Medals from 1869 to 1889, both years included, will be found in the Historical Appendix to List of Graduates, published in 1889, pp. 128, 129.

Treatment of Lateral Curvature of the Spine.

** James Linton Bogle, England, M.B., C.M., 1873. The Prevalent Diseases of the Upper Karroo; their Etiology and Relative Frequency.

*** Francis Darby Boyd, Scotland, M.B., C.M., 1888. Some Points in the Pathology of the Albuminuria.

* John Egerton Brandt, Madeira (B.A.), M.B., C.M., 1890. Motor and Sensory Aphasia.

* Reginald Broadbent, England, M.B., C.M., 1888. Diabetes Mellitus.

Daniel Walter Brown, England, M.B., C.M., 1887. Treatment by Intra-Laryngeal Injections.

* Ernest Christison Carter, England, M.B., C.M. (with First-Class Honours), 1887. The Nature of Secondary Malignant Growth, as illustrated by a case of Melanotic Tumours.

* Joshua Chaytor-White, Ireland, M.B., C.M., 1887. A Commentary on Cholera Outbreak in India.

George Ernest Clemons, Tasmania, M.B., C.M., 1891. Manual Osteoclasis in the Treatment of Deformities due to Rickets.

* Alfred Charles Coles, England, M.B., C.M., 1889. Observations on Myxœdema, with special reference to Pathological Conditions found in the Leucocytes.

Frederick John William Cox, Scotland, M.B., 1881. Some of the Aural Complications of Influenza.

* Herbert Dobie, England, M.B., C.M., 1889. A Study of the Histology of certain Skin Diseases.

Alexander Peters Drummond, Scotland, M.B., C.M., 1883. Hæmatemesis, with special reference to that form met with in early adult female life.

William Everett, England, M.B., C.M. (with Second-Class Honours), 1889. Traumatic Insanity.

** William Fordyce, Scotland, M.B., C.M. (with First-Class Honours), 1888. Intra-Uterine Ascetis; its Obstetrical significance and Pathology.

** Frederick Gourlay, Scotland, M.B., C.M., 1891. Some Notes on the Thyroid and the other Ductless Glands, together with some Original Experiments to discover the nature of the Thyroid Tissues and Secretion; also Report of a Case of Myxœdema successfully treated by Thyroid Feeding.

William Harding, England, M.B., C.M., 1881. Chorea and Rheumatism.

* Reginald Ernest Horsley, Australia, M.B., C.M., 1885. Chronic Nasal Catarrh (Rhinitis Chronica): a Consideration of its Varieties, Pathology, Etiology, and Complications, with some Remarks upon the Methods of Treatment now in vogue.

George Hoyle, England, M.B., C.M., 1873. The Diagnosis and Treatment of Intestinal Obstruction.

* Henry Greville Huie, Scotland, M.B., C.M., 1890. Myxœdema and Sporadic Cretinism, with Special Reference to their Treatment with Thyroid Juice.

25 Henry Halcro Johnston, Scotland, M.B., C.M., 1880. The Relation between Malarial Fever among Her Majesty's White Troops at Port Louis, Mauritius, and the Meteorological Elements of Temperature, Rainfall, and Relative Humidity for the year 1889, with a Preliminary Sketch of the Medical Topography of the Island and the Epidemic of Malarial Fever in 1866-67.

Thomas Looney Kennish, England, M.B., C.M., 1888. The Therapeutical Value of Physiological Rest in the Treatment of Disease.

Leslie James Lamrock, Australia, M.B., C.M., 1891. Rickets: the Clinical Characteristics, Complications, and Treatment of the Disease.

* William Tasker Lundie (M.A., B.Sc.), Scotland, M.B., C.M., 1888. Neuropathic Oedemas.

* Stuart Gerald M'Allum, India, M.B., C.M., 1889. Phthisis Pulmonalis in the Insane.

30 William Crawford M'Ewan (M.A.), Scotland, M.B., C.M., 1884. Appendicitis.

* John Wilson Martin, England, M.B., C.M., 1887. Notes of Cases of Snake-bite, with Remarks on the more recent methods of Treating Snake-bite in Australia.

Alexander Sutherland Miller, Scotland, M.B., C.M., 1890. Acute Pneumonia: a General View of the Teaching on the Subject with Observations on the Use of Inhalations of Oxygen and the Hypodermic Injections of Strychnine in the Treatment of the Disease.

* Robert Alexander Murray, Scotland, M.B., C.M., 1879. Some Surgical Experiences.

* Francis Cobham Nicholson, Australia, M.B., C.M., 1869. Cholera and its Treatment.

35* William Basil Orr, Scotland, M.B., C.M., 1888. Lupus Elephantiasis.

Maurice Paterson, Scotland, M.B., C.M., 1885. Principles of Expression.

** William Ernest Porter, England, M.B., C.M., 1883. Studies in Vital Statistics, more especially those relating to the Middle Classes, and chiefly based upon figures collected from the column of Births, Marriages, and Deaths in the *London Daily Telegraph* during the years 1888 and 1889.

* Geoffrey Hammett Prance, England, M.B., C.M., 1891. Epidemic Dermatitis Exfoliativa.

William Richards, England, M.B., C.M., 1884. The Diseases of Brass Workers.

40* Richard Richmond, England, M.B., C.M., 1888. Analysis of the Causes of Death in an Essex Rural District, and an Examination of its Vital Statistics during the ten years 1881-90, with Remarks upon the Occurrence of Infectious Disease.

Stanley Riseley, England, M.B., C.M., 1891. Detachment of the Retina; its Pathological Anatomy, Causation, and Treatment.

Hugh Leslie Roberts, England, M.B., C.M., 1887. Introduction to the Study of the Mould-Fungi Parasitic in Man.

William Iverach Robertson, Scotland, M.B., C.M., 1890. On the Treatment of Malignant Growths in relation to what is believed as to their cause.

Edmund Robinson, England, M.B., C.M., 1872. Resumé of an Epidemic of Measles, combined with a strong Scarlatinal Element (Rötheln), and the proof of such in the sequele thereof.

45 Richard Sanders Rogers (B.A.), Australia, M.B., C.M., 1887. Some Protean Aspects of Hysteria.

* Frederick William Forbes Ross, Jamaica, M.B., C.M., 1889. The Infantile Alimentary Tract a Sinus.

* Andrew Rowand (M.A., B.Sc.), Scotland, M.B., C.M. (with Second-Class Honours), 1887. Insanity in Adolescence; its Forms, Causes, Prevention, and Treatment.

*** James Samuel Risien Russell, Demerara, M.B., C.M., 1886. An Experimental Investigation of the Nerve Roots which enter into the formation of the Limb Plexuses of the Dog and Monkey.

Gerard Septimus Samuelson, Australia, M.B., C.M., 1888. Some Etiological Factors of Health: a Clinical study.

50 James Foster Scott (B.A.), America, M.B., C.M., 1888. Hydrothionuria, or the Phenomenon of Sulphuretted Hydrogen Gas in Urine: a Review of the Literature.

Arthur Sellers, England, M.B., C.M. (with Second Class Honours), 1886. The Value of Oxygen Gas in the Treatment of Disease.

Ernest William Skinner, England, M.B., C.M., 1885. Diphtheria as observed in certain Parishes in East Sussex, with Special Reference to its Origin.

*** James Lorrain Smith (M.A.), Scotland, M.B., C.M., 1889. Thyroidectomy and Respiratory Exchange: a Contribution to the Pathology of Myxœdema.

** George Alexander Sutherland (M.A.) Scotland, M.B.,

C.M., 1886. Scurvy in Children.

55 John Frederick Joseph Sykes, England, M.B., C.M., 1878. An Enquiry into an Outbreak of Enteric Fever and the Disseminatian of the Disease by Infected Steam Vapours.

Ernest Edmund Taylor, England, M.B., C.M., 1889. Senile Gangrene, with illustrative cases.

*** John Cleasby Taylor, England, M.B., C.M., 1884. The Health Resorts of the Canary Islands.

*** William Ernest Francis Thomson (M.A.), Scotland, 1889. The True Position of Oxygen as a Restorative in Carbonic Acid Poisoning.

Charles Edward Walker, England, M.B., 1878. On some Diatheses and their bearing upon Practical Medicine.

60* Richard John Erskine Young, Scotland, M.B., C.M., 1891. A Treatise on Bloodletting (general and topical), Historically, Theoretically, and Clinically considered from the Physician's standpoint.

GRADUATES (M.B., C.M.) WHO HAVE PASSED THE EXAMINATIONS WITH HONOURS FROM 1889 TO 1893, BOTH YEARS INCLUDED. [1]

1889.

Class I.

Robert Oswald Adamson (M.A.), Scotland
John William Crerar, Scotland
William Fred. Farquharson, Scot.
James Lackie, Scotland
Jas. Hill Williamson Laing (M.A., B.Sc.), Scotland
Hamilton Graham Langwill, Scot.
Alexander Maclean, Scotland
Eustace G. Pilgrim, Barbados
Wm. Gordon Woodrow Sanders, Scotland
James Andrew Thyne, Scotland
George Wilkinson, England

Class II.

Robert Dunlop Reid Allison, Scot.
William Everett, England
George Alfred Walter, England
Colin Gordon, England
Ewan John Maclean, Wales
James Monteith, Scotland
Benjamin Sweeten, Scotland
C. N. C. Wimberley, Scotland

1890.

Class I.

Charles James Whitehead Dixon, England
Carstairs Cumming Douglas, Scotland
Gerald Fitzgerald, Scotland
Robert Main Horne, Scotland
Colin Forbes Lees, Scotland
William Paterson, Scotland
George William Thompson, La Plata
William Kerr Walker, Scotland

[1] For names of those who received the Degrees with Honours prior to 1889, see Historical Appendix to List of Graduates of the University, published in 1889, pp. 129-132.

Class II.

Ed. H. Alexander, New Zealand
Robert Brown, Scotland
John Wheeler Dowden, Ireland
George Balfour Marshall, Scotland
Arnold W. Williams, England

1891.

Class I.

John Wardle Bone, England
Wm. Blackley Drummond, Scot.
George Elder, Scotland
Edward Barnard Fuller, Africa
Henry Baker Hall, England
George Hennan, Scotland
Herbert Saunders Wansbrough Jones (B.Sc.), Wales
Harry Rainy (M.A.), Scotland

Class II.

Robt. J. Ashton (B.A.), England
Robert Cran, Scotland
Frederich Wilhelm Eurich, Saxony
David J. Mackenzie (M.A.), Scot.
John Orr, Scotland
David Stuart, Scotland
Wm. J. Walker (B.A.), Australia
Neish Park Watt (M.A.), Scotland
John Thos. Wilson, Tasmania

1892.

Class I.

Alexander Brownlie, Scotland
Charles Cromhall Easterbrook, (M.A.), England
George Home, New Zealand
Lim Boon Keng, Singapore
Robert Murray Leslie (M.A., B.Sc.), Scotland
Donald Macaulay (M.A.), Scot.

Class II.

Alexander Douglas (M.A.), Eng.
Daniel Charles Edington, Scot.
John James Evans, Wales
Arthur Fells, England
James Stewart Fowler, Scotland
Robert Walker Gray, Scotland
Robert John Johnston, Scotland
Geo. Wm. F. Macnaughton, Scot.
Philip Oscar Malabre, Jamaica
Peter William Shaw, Scotland
Alfred George Talbot (B.A.), New Zealand
George Templeton, Scotland

1893.

Class I.

Charles Crerar, Scotland
John Buchanan Duff, Scotland
Alex. M. Easterbrook, Scotland
Wm. E. Fothergill (M.A., B.Sc.), England
Robert Hutchison, Scotland
Robert H. Makgill, Scotland
Jas. V. Paterson, M.A., Scotland
David W. Sutherland, Australia
Hugh Walker (M.A.), Scotland
D. A. Welsh (M.A.), Scotland

Class II.

William Randolph Center, Scot.
Robert Craig Dun, Scotland
George Harry Dupont, England
Charles Alfred Hogg, Tasmania
Charles Kerr, Scotland
James G. Macnaughton, Scotland
W. M'D. Selby, Scotland
St John Stanwell, England
John Steed, England
John Tennant (M.A.), Scotland
John Brown Yeoman, Scotland

Bachelors of Medicine and Masters in Surgery.

1st August 1893.

Small CAPITALS *indicate First-Class Honours.*

Italics Second-Class Honours.

Wm. Alfred Johnstone Alexander (M.A.), Scotland
George Bell Anderson, Scot.
William Anderson, Ireland
William Christopher Anderson (M.A.), Scotland
George John Awburn, England
Robert Ballantine, Scotland
John Thomas Balmford, Eng.
Henry Percy Barlow, England
William Dodgson Barrow, England
Frederick William Barton, England
Daniel Henry Beegling (B.A.), Australia
James Bett Bell, Scotland
William Bruce Bell, Scotland
Hugh Percy Bennett, England
John Gibbs Francis Bent, England
William Thomas Blackledge, England
James Blyth, Scotland
Maxwell Ranken Bow, Scot.
Allan Stuart Boyd, Scotland
Christian William Branch, England
Alexander Hill Buchan (M.A.), Scotland
John Martin Buist, Scotland
John Colin Caldwell, Scotland
Alexander William Cumming Cameron, Scotland
Peter Campbell, Scotland
Featherston Cargill, Scotland
Arthur Benjamin Carvosso (B.A.), Australia
Henry William Case, England
James Gibson Cattanach, Scotland
William Catto (M.A.), Scot.
William Rudolph Center, Scotland
John Eugene Adolphus Chatelier, India
Devendra Nath Chatterjee (B.A.), India
Cuthbert Christy, England
John Clark, Scotland
Thomas Aldous Clinch, Eng.
George Alexander Cohen, England
George Probyn Coldstream, Scotland
Raphael Avedis Garabed Constantian, Turkey
Henry Oakley Corfield, Eng.
John Napier Craig, Scotland
George Panton Crarer, Scot.
CHARLES CREARER, Scotland
Donald Bayne Crearer, Scot.
Andrew Croall, Scotland
David Reid Crow, Scotland
Nagendra Chandra Das, India
Arthur Dennison, England
George Robert Denton, Eng.
Clarence Brian Dobell, Eng.
James Kennedy Drysdale, Scotland
JOHN BUCHANAN DUFF, Scotland
Robert Craig Dun, Scotland
John Davidson Duncan, Scot.
Robert William Duncan, England
Thomas Dunlop, Penang
James Churchill Dunn, New Zealand
George Henry Dupont, Eng.
ALEXANDER MAITLAND EASTERBROOK, England

Edward Charles Edwards, England
Samuel Evans, India
Thomas Farthing, England
Duncan Monteith Ferguson, Scotland
Joseph Lawrence Ferris, Ireland
Peter Daniel Fick, Cape Colony
David Findlay, Scotland
Andrew Milroy Fleming, Scotland
William Edward Foggie (M.A.), Scotland
Alfred Wightman Forrest, England
Arthur Foster, England
WILLIAM EDWARD FOTHERGILL (M.A., B.Sc.), Eng.
John Ainslie Foulis, England
David Pierce Foulkes, Eng.
Robert Algernon Fox, Eng.
Andrew Mearns Fraser, Eng.
John Gallie Fraser, Scot.
Robert William Fraser, Wales
Archibald Gardner, Scotland
Thomas Gibson, Australia
Howard Beauchamp Gladstone, England
Charles Sievwright Glegg, Scotland
John Hastings Glover, Ireland
Thomas Goldie Goldie-Scot, Scotland
Frank Thornborough Gourlay, Scotland
Simon Dickson Graham, Scotland
James Taylor Grant, Scotland
Harry Grey, Scotland
Arthur Gwyther, India
William Thompson Hall, England
William Crosbie Hamilton, New Zealand
Robert Hanton, Scotland
Cooper Hardcastle, New South Wales
Thomas Browne Hearder, Scotland
Charles Alfred Hogg, Tasmania
Robert Hoggan, India
Crampton Whitaker Holme, England
John Hume, Scotland
Geoffry Percy Humphrey, England
ROBERT HUTCHISON, Scot.
John William Hyslop, Scot.
Ernest William John Ireland, Tasmania
William Roy Jackson (M.A.), Scotland
Richard Cartwright Jameson, Scotland
William Ernest Jameson, England
Thomas John Jehu, Wales
Richard Kenyon, Scotland
Charles Kerr, Scotland
Clement Thomas Cory Kingdon, England
John Kippax, England
Walter Charles Campbell Kirkwood, Scotland
Louis Francis Behagen Knuthsen, West Indies
Frederick William Langton (B.A.), New South Wales
John Albert Lee, England
Edward Stewart Lewer, Eng.
Frederick Lishman, England
George Osborne Morgan Lunt, Wales
William Frederick M'Allister-Hewlings, England
George Allardice Macdonald, West Indies
Hugh M'Donald, Scotland
Arthur William James MacFadden, Ireland
George MacGibbon, Scotland

John Alexander Mackenzie, Scotland
Arthur Mackintosh, Scotland
Hugh John Mackintosh, Scotland
John Drummond Pryde M'Latchie, Scotland
James Dugald Maclean, Scot.
John Duncan M'Millan, Scot.
James Garvie M'Naughton, Scotland
Andrew M'Neil (B.A.), Australia
Archibald Macnicol, Scot.
Patrick William MacVean, Scotland
ROBERT HALDANE MAKGILL, Scotland
Robert Bruce Marjoribanks, India
James Marsh, England
Robert Brownlie Martin, Scotland
Anwyl Charles Matchett, England
Roderick Murdoch Matheson, Scotland
James Crawford Maxwell (M.A.), Scotland
William Millar, Scotland
Thomas Benjamin Moore (B.A.), America
Arthur Henry Moorhead, Ireland
John Mudie Morris (M.A.), Scotland
Sylvanis Glanville Morris, Wales
Charles Graham Murray, Barbados
David Murray, Scotland
Duncan Gray Newton, Scot.
James Dickson Noble, Scot.
Louis Septimus Francis de Rohan Norman, Ireland
George Williamson Park, Scotland
Consett Howard Passman, England
JAMES VEITCH PATERSON (M.A.), Scotland
Frank Russell Patterson, Turkey
James Pearse, England
John Penny, England
Andrew Philip, Scotland
George Phillips, England
James Coubro Potter, England
Raymond Herbert Price, India
George Loraine Kerr Pringle, Scotland
Samuel Willis Prowse (B.A.), Canada
Elias Bell Purdon, Ireland
George Martin Rae, England
Matthew Burrow Ray, England
James Reiach, Scotland
Robert Rendall, Scotland
Robert Riddell, Scotland
Alan Robertson, Singapore
William Robertson, England
Edward Robinson, England
James Benjamin Robinson, West Indies
Leonard Nicholas Robinson, England
Francis White Hope Robson, England
Joseph Ernest Rogers, New Zealand
Robert Rosie, Scotland
William Archibald Rutherford, England
Selim Moses John Saliba, Syria
Cecil Edward Salt, England
Muir Sandeman (M.A.), Scotland
Herman Schmitz, England
Henry Scott, Scotland

William Elmsley Scott-Moncrieff, Scotland
John Payzant Silver (B.A.), Canada
Arthur Henry Havens Sinclair, Scotland
Archibald Adam Scot Skirving, Scotland
185 George Smith (M.A.), Scotland
Thomas Smith, Scotland
John Sorley (M.A.), Scotland
St John Stanwell, England
Arthur Paget Steavenson, England
190 *John Steed*, England
James Wilson Stenhouse, Scotland
Charles Parker Stewart, Scotland
DAVID WATERS SUTHERLAND, Australia
James Murray Sutter, Scotland
195 *John Tennant* (M.A.), Scotland
George St Clair Thom, Scotland
David Thomas (M.A.), Scotland
Ernest Stanley Templeton Towert, South Africa
Walter Barrie Turnbull, Scot.
200 Herbert Wynne Vaughan-Williams, Wales
HUGH WALKER (M.A.), Scotland
James Gellatly Walker, India
Harry Stones Walsh, England
Ernest Edwin Waters, England
205 Francis Hammond Watling, India
Robert Henry Watson (M.A.), Scotland
Thomas Watson, Scotland
William Thomas Wearing, England
DAVID ARTHUR WELSH (M.A., B.Sc.), Scotland
210 Thomas Robert Williams, Wales
Richard Arderne Wilson, South Africa
Thomas Yeates, Ireland
John Brown Yeoman, Scotland
214 Zorab Mackertich Zorab, India

28TH OCTOBER.

Frank Oliphant Bell, England
William Carr, England
William Briggs Clarke, Barbados
Duncan Menzies Conacher, Scotland
5 Ernest Albert Dent, England
Edward Percival Dickin, England
Rolland Atkinson Dove, England
Peter Galstann Edgar, Straits Settlements
Charles Reginald Edmondson, England
10 William Forsyth, Scotland
William Hamilton Gaunt, Australia
Hugh Frederick Green, England
Frederic Pollington Hearder, Wales
George Hodges, New Zealand
15 James Kyd Duncan Ingram, Scotland

Oswald Hanson Isard, England
Dugald Shaw Johnston, Scotland
Charles William Aberdein Jones, Australia
Evan Jones, Wales
John Gordon Leslie, Scotland
Arthur Hamilton Lowe, England
Donald Macdonald, Scotland
Alexander Gray M'Intyre, Scotland
Henry Deedes Nutt Mackenzie, England
Joseph Michael, Armenia
Edward Arthur Mills-Roberts, Wales
Thomas Pullar Monteath (B.A.), Canada
James Lennox Irwin Moore, England
Robert Dudley O'Neale, Barbados
John Lloyd Owen, Wales
Frank Swarbrick Park, England
John Hodge Phyn, Scotland
Augustus Francis Meredith Powell, South America
Malcolm MacGregor Rattray, Scotland
Henry Argyll Robertson, Scotland
Abraham Hepworth Robinson, England
Alexander Aitken Ross, Scotland
George Carlow Sandford, England
Alexander Campbell Smith, Scotland
Riccardo Stephens, England
Rúp Kishore Tandan, India
William Atkinson Taylor, Scotland
Thomas James Thomson, Scotland
John Albert Thorne, West Indies
Arthur Charles Turner, England
Robert Blackie Wallace, England
Godfrey Warnes, England
Harry Weighton, Scotland

27TH JANUARY 1894.

Alexander Cruickshank Ainslie (M.A.), Scotland
John Bryden Hawthorn, Scotland
William M'Dowall Selby, Scotland
Evan Lloyd Williams, Wales

13TH APRIL 1894.

James Hadane M'Donald, India

DEGREE OF MASTER OF SURGERY.

1ST AUGUST 1893.

Charles Edward Walker (M.B., 1878), England

Class Prize Lists.

SUMMER SESSION, 1893.

BOTANY.

First-Class Honours.—1. Robert Main, Monymusk; R. F. M'Nair Scott, Singapore, and William J. Stuart, Edinburgh—equal; 4. John Richards, North Wales; 5. Sidney Unwin, London; 6. William Hamilton, Middlesborough (*Medallists*); 7. James Paterson, Edinburgh; 8. John H. Gordon, Mid-Lothian, and Frank M. Willcox, Adelaide—equal; 10. Ernest F. Bashford, Cheshire; 11. George H. Gatenby, Stockton-on-Tees.

Second-Class Honours.—12. John D. Comrie, Peterhead; 13. C. L. Dunn, Valparaiso; 14. Bertram C. R. Aldren, Malvern, and Robert J. Dick, Dunbar—equal; 16. William Bell, England; G. L. Findlay, Durban, Natal, and Harry M. Traquair, Edinburgh—equal; 19. Percy T. Herring, Yorkshire, and A. C. M'Gilchrist, Islay—equal; 21. Robert M. Clark, Cambridge; W. J. H. Hislop, New Zealand; Walter G. Napier, Edinburgh; Thomas A. Price, Brisbane, and W. Carlyle, Wilson, Calcutta—equal; 26. James Miller, Edinburgh; 27. G. M. Bucher, Edinburgh, and Thomas D. M'Laren, Edinburgh—equal; 29. Longfield Smith, Leeds; 30. W. M. Paul, Coldstream; 31. George Lyon, Argyllshire; Mack W. Manuk, Calcutta, and T. Scott Shepherd, Wigan—equal; 34. Robert Cumming, Montrose; 35, James Kerr, Greenock; John Malcolm, Caithness, and James M. Reid, Edinburgh—equal; 38. Robertson Borthwick, Lochmaree; J. S. Fraser, Cupar-Fife, and C. M. Robertson, Miraflores—equal; 41. William Hope Fowler, Edinburgh, and F. W. More, Caithness—equal; 43. Albert J. Orchard, Australia; W. M. Wilson, Northumberland, and Arthur G. Worrall, Dundee—equal; 46, John G. Forsyth, Eyemouth, and Alex. H. Pirie, Dundee—equal; 48. Chas. S. Brebner, Darlington; Miles Johnston, Argent. Repub.; A. D. Fordyce, Edinburgh, and John Stevenson, New Zealand—equal; 52. George H. List, India; D. V. M'Intyre, Dundee; Harold Malcolmson, Bambridge; A. H. Thompson, Barrow, and C. P. Bligh Wall, London—equal; 57. William Craig, Kelso, and Bruce Greig, Edinburgh—equal; 59. Thomas Biggam, Wigtownshire; Robert Crawford, Bradford; R. C. Cunningham, Ardee, Louth; James W. M'Intosh, Edinburgh, and John Wm. Struthers, Aberdeen—equal; 64. Chas. H. Johnstone, Melbourne, and Alexander Spiers, Berwickshire—equal.

PRACTICAL BOTANY.

Class A.

First-Class Honours.—1. Robert Main, Monymusk; 2. Percy T. Herring, New Zealand—(*Medallists*); 3. B. W. Burwood, London, and John Stevenson, New Zealand—equal; 5. Robertson Borthwick, Edinburgh, and A. C. M'Gilchrist, Islay—equal.

Second-Class Honours.—7. W. S. Eaton, Cumberland; Thomas A. Price, Brisbane, and Longfield Smith, Leeds—equal; 10. J. M. Cuthbert, Greenock, and T. Scott Shepherd, Settle—equal; 12. Robert J. Dick, Dunbar; John H. Gordon, Midlothian; James Miller, Edinburgh; W. R. Somerset, Derbyshire, and W. Carlyle Wilson, Calcutta—equal; 17. C. H. Elmes, Gibraltar; Thomas Biggam, Wigtownshire, and James Husband, Edinburgh—equal; 20. W. Anderson, Kincardineshire; Alf. T. Gailleton, Perth; W. J. H. Hislop, New Zealand, and William J. Stuart, Edinburgh—equal.

Class B.

First-Class Honours.—1. R. F. M'Nair Scott, Singapore; 2. Ernest F. Bashford, Portobello (*Medallists*); 3. Arthur G. Worrall, Dundee; 4. Frank M. Willcox, Adelaide.

Second-Class Honours.—5. James Kerr, Greenock, and Harry M. Traquair, Edinburgh—equal; 7. Bertram C. R. Aldren, Malvern; George H. Gatenby, Stockton-on-Tees, and William Hamilton, Middlesborough—equal; 10. C. L. Dunn, Londonderry; Ernest E. Porritt, New Zealand; C. M. Robertson, Miraflores, and D. B. Waters, Wick—equal; 14. J. R. Anderson, Aberdeenshire; S. Branch, St Kitts; J. S. Fraser, Cupar-Fife; Miles Johnston, San José, and Patrick Kinmont, Errol—equal; 19. W. G. Heath, Antigua; J. T. P. Heatley, Cornhill-on-Tweed; James Paterson, Edinburgh, and Alexander H. Pirie, Dundee—equal.

Class C.

First-Class Honours.—1. John Richards, North Wales, and John Malcolm, Caithness (*Medallists*); 3. Ben. Horrocks, Manchester.

Second-Class Honours.—4. George L. Chiene, Edinburgh; George W. Smith, West Indies, and Harold Malcolmson, Holywood—equal; 7. C. H. Gostwyck Gard, Curragh; Alexander M. Little, Annan; Ernest W. Lewis, Bellary, and J. Rutter Williamson, England—equal; 11. Charles H. Johnson, Melbourne; Mack W. Manuk, Calcutta; C. P. Bligh Wall, London, and Ernest C. Peake, Madagascar—equal; 15. F. W. More, Caithness; G. Hearn Parry, Southampton; William S. Messer, Penicuik; H. N. Chambers, Calcutta, and James Masson, Edinburgh—equal.

FOR MICROSCOPICAL SECTIONS MADE DURING THE SESSION.

FIRST-CLASS HONOURS AND PRIZES.—1. Ben. Horrocks, Manchester; 2. B. W. Burwood, London, and Robert Main, Monymusk—equal; 4. Percy T. Herring, New Zealand, and Miles Johnston, San José—equal.

SECOND-CLASS HONOURS.—6. Robert J. Dick, Dunbar; 7. W. M. A. Smith, Monikie; 8. E. F. M. Neave, Dundee.

FOR DRAWINGS ILLUSTRATING WORK DONE DURING THE SESSION.

SECOND-CLASS HONOURS AND PRIZES.—1. H. N. Chambers, Calcutta; 2. J. S. Fraser, Cupar-Fife.

ISAAC BAYLEY BALFOUR, M.D., D.Sc., *Professor.*

NATURAL HISTORY.

FIRST-CLASS HONOURS.—1. Ernest F. Bashford; 2. H. M. Traquair, and Wm. Watson—equal; 4. Geo. Burns—*Medallists*; 5. T. Biggam and M. Johnston—equal.

SECOND-CLASS HONOURS.—7. J. Richards; 8. James Fraser; 9. R. F. M'N. Scott; 10. R. W. Mackenna; 11. W. Bell, and F. M. Willcox—equal; 13. J. D. Comrie; T. G. L. Findlay, and James Paterson—equal; 16. A. T. Gailleton, and Mack W. Manuk—equal; 18. Thomas A. Price; 19. D. V. M'Intyre, and W. G. Napier—equal; 21. James Burnet; 22. H. H. Morton; 23. John Stevenson; 24. E. F. Coghlan; C. L. Dunn; John Malcolm; R. G. Riddell, and W. C. Wilson—equal.

PRACTICAL ZOOLOGY.

FIRST-CLASS HONOURS.—1. Ernest F. Bashford; 2. Miles Johnston; 3. H. M. Traquair; 4. F. M. Willcox (*Medallists*).

SECOND-CLASS HONOURS.—5. Wm. Watson; 6. E. E. Porritt; 7. P. J. Herring, and J. Richards—equal; 9. J. Paterson; 10. W. H. Fowler; 11. J. R. Anderson; R. J. Dick; R. W. Mackenna; J. Kerr, and J. Stevenson—equal.

J. C. EWART, M.D., *Professor.*

PRACTICAL CHEMISTRY.

FIRST-CLASS HONOURS.—1. Robert Affleck (*Medallist*); 2. W. S. Eaton, and J. K. Ross—equal.

SECOND-CLASS HONOURS.—4. A. W. Duff; 5. J. S. Fraser; 6. James Henderson.

ALEX. CRUM BROWN, M.D., *Professor.*

PHYSICS.

First-Class Certificates.—1. R. F. Scott (*Medallist*); 2. W. Hamilton, and A. M'Gilchrist—equal; 4. J. Leighton; 5. R. L. Ross; 6. L. Critchley and W. Veecock—equal; 8. W. Darling.

Second-Class Certificates.—9. J. Gordon; 10. A. Firth; D. Forbes; G. Gatenby, and G. Lyon—equal; 14. A. Gibson; T. Shepherd, and W. Somerset—equal; 17. C. Dunn; 18. J. Fraser and H. Macfarlane—equal; 20. B. Aldrer, and M. Johnston—equal; 22. J. Allison and T. Maclaren—equal; 24. R. Cumming; J. M. Cuthbert; C. Hutson; R. M. Moffat; J. Paton, and H. Wade—equal; 30. B. Greig; G. Pemberton; W. Tarr and G. Thomson—equal; 34. T. Lamond; 35. R. Crawford; J. Forrest, and A. Worrall—equal.

P. G. TAIT, M.A., *Professor.*

PRACTICAL ANATOMY.

SENIOR STUDENTS.

First-Class Honours.—1. A. P. Low, Arbroath; 2. L. A. Crooks, Jamaica (*Medallists*); 3. J. B. Hay, Cape Colony; 4. A. W. Bowie, Edinburgh; 5. B. R. Craig Christie, Lanarkshire, and J. A. Forrest, Antigua—equal; 7. John Forbes, B.Sc., Muriford, and Fred Gardner, Edinburgh—equal; 9. J. G. P. Murray, Gosport, and H. G. Waugh, New South Wales—equal; 11. H. H. Balfour, Edinburgh; Robert Grieve, London, and Rhoades Haygarth, Keighley—equal; 14. Richard Brodie, Inverness; Edward Crarer, Blairgowrie, and Richard Owen, Wales—equal; 17. R. G. Ralston, Glasgow, and P. W. Wilkinson, Leicestershire—equal; 19. W. E. Gibbons, Liverpool; 20. J. K. Raymond, Grey Town, and W. Macrae Taylor, Edinburgh—equal; 22. D. M. Mackay, Hull; 23. A. J. Copplestone, Sidmouth; 24. W. B. Anderson, Dundee; H. E. Huntly, Preston, and George Lawrence, Dundee—equal; 27. H. J. Ewald, Haiti; 28. William Evans, Lancashire, and Robert Owen, N. Wales—equal; 30. T. T. Ormerod, Yorkshire, and Hugh Richardson, India—equal; 32. A. S. Brass, Jamaica; Nathaniel Caine, Liverpool; Stanley Ducat, Arbroath; Walter Johnson, Preston, and R. L. Moorhead, Kent—equal.

Second-Class Honours.—37. W. G. C. Geekie, Perthshire; 38. S. H. Carr, Carlisle; 39. William Buchanan, New Zealand; J. D. G. Macpherson, India; Peter Rattray, Dundee, and J. T. Shirlaw, Loanhead—equal; 43. F. M. Purchas, New Zealand, and C. W. Reid, Sydney—equal; 45. J. D. C. Howden, Natal; R. E. Loney, Berwickshire, and S. H. Richards, Brighton—equal; 48. F. A. Hardy, Nottingham, and F. G. Proudfoot, St Andrews—equal; 50. Arthur Dickson, Montrose; 51. B. M.

Bone, Lancaster; L. V. Laurie, Burntisland, and A. C. Lupton, Scarborough—equal; 54. A. M. Rattray, Portobello.

Mr A. T. Evans, S. Wales, was unavoidably absent from one examination.

JUNIOR STUDENTS.

First-Class Honours.—1. Daniel Brough, Musselburgh, and James Davidson, Berwick—equal (*Medallists*); 3. G. C. Low, Monifieth; T. A. Ross, Edinburgh, and J. D. Slight, Portobello—equal; 6. John Bruce, Perthshire; C. M. Cooper, Somerset; A. W. Limont, Northumberland; Edwin Matthew, Aberdeen, and W. J. Penfold, Brampton—equal; 11. T. M. Callendar, Leith; J. B. Cusine, Glasgow; D. R. Rowlands, Wales, and A. D. Yule, Arbroath—equal; 15. J. G. Bailie, Worcester; C. D. Lander, Bangalore; J. L. Marjoribanks, East Lothian; J. K. Raymond, Grey Town, and F. O. de Souza, Singapore—equal; 20. E. H. Irwin, Armagh, and G. Ll. Roberts, Cardiff—equal; 22. D. D. Gold, Leven, and R. K. Howden, Natal—equal; 24. J. C. Stuart, Yorkshire; 25. N. D. Bardswell, England; 26. Robert Selby, Wigtownshire; 27. J. Trevor Williams, North Wales; 28. G. B. Serle, East Linton; 29. T. F. Johnston, Ormiston; 30. T. B. Shoolbread, Portsmouth; 31. J. R. Hall Walker, Edinburgh.

Second-Class Honours.—32. J. B. Jamieson, Edinburgh; 33. J. A. Shoolbread, Portsmouth; 34. James Nicoll, Perthshire.

Mr George Drummond, Perthshire, was unavoidably absent from two examinations.

WM. TURNER, Kt., M.B., D.C.L., *Professor.*

PRACTICAL PHYSIOLOGY.

First-Class Honours.—1. D. R. Rowlands, North Wales; 2. J. A. Milroy, Wigtownshire; 3. W. W. Wood, Leith (*Medallists*); 4. R. G. Ralston, Glasgow, and J. Stenhouse, Scotland—equal; 6. R. M. Leith, Cape Colony; 7. D. D. Gold, Leven; F. W. Twidale, India, and A. Wallace, Prestonpans—equal.

Second-Class Honours.—10. W. F. Harvey, India, and W. H. Goldie, New Zealand—equal; 12. C. D. Lander, Bangalore, and G. C. Low, Monifieth—equal; 14. J. Fraser, Perth; A. Macdonald (M.A.), Edinburgh, and A. D. Yule, Arbroath—equal; 17. R. W. Anthony, India; J. R. Lord, England, and T. H. Macfie, Whithorn—equal; 20. J. H. Henderson, New Zealand; 21. H. M. Morton, Longtown, and J. G. P. Murray, Gosport—equal; 23. J. W. Simpson, Polmont; 24. A. F. Cameron, Forfarshire; 25. J. B. Cusine, Glasgow, and F. H. Merry, Edinburgh—equal; 27. H. T. J. Thacker, New Zealand; 28. W. J. Buchanan, Rangoon; C. M'Laurin, Sydney, N.S.W.; and E. F. Wills, Madagascar—equal; 31. D. M. Mackay, Hull; J. A.

Murray, Mid-Lothian, and T. A. Ross, Edinburgh—equal; 34. O. St J. Moses, Calcutta; A. E. Richard, Lausanne; F. O. de Souza, Singapore, and G. A. Welsh, Edinburgh—equal; 38. F. Gardiner, Edinburgh, and J. G. Ross, Calcutta—equal; 40. G. Ll. Roberts, Wales; 41. J. Crawford, Ceylon; A. M. Fleming, Partick; J. F. Lindsay, Lanarkshire, and W. G. Wight, Castlewellan—equal; 45. E. J. Bray, Australia; D. H. Hutchinson, London, and J. D. Slight, Portobello—equal; 48. J. Henderson, Ireland; R. K. Howden, Natal, and O. Raitt, Nairn—equal.

WM. RUTHERFORD, M.D., *Professor.*

PRACTICAL MATERIA MEDICA.

First-Class Honours.—1. Frederick R. Jones, Leicester; 2. Percy W. Shepherd, Yorkshire; 3. J. H. S. B. Douglas, Demerara; 4. J. Kirk, Edinburgh (*Medallists*); 5. W. J. C. Coulthard, Cumberland; 6. Frederick H. Merry; 7. A. C. Sturrock, M.A., Scotland; 8. George Henderson, Dundee; 9. J. T. Hewetson, Cumberland.

Second-Class Honours.—10. James Davidson, Berwick; 11. J. A. Milroy, Wigtownshire, and James Bannerman, Southport—equal; 13. G. F. Lundie, Cape Colony; 14. J. G. P. Murray, Gosport; 15. James Allison, Lanarkshire; Frank B. Macdonald, Scotland; John R. Lord, Blackburn, and F. Robert Momplé, Mauritius—equal; 19. William Lillie, India; James F. Lindsay, Lanarkshire, and Angus Macdonald, M.A., Edinburgh—equal; 22. Arthur D. Peill, Madagascar, and James Stenhouse, Scotland—equal; 24. Arthur Dickson, Montrose; 25. Thomas Gibson, Clackmannan; 26. A. J. W. Buchanan, Edinburgh; John Eason, Leith, and Hugh Richardson, India—equal; 29. W. F. Eason, Lanarkshire; J. H. Henderson, New Zealand; Stewart Macdonald, Kirkcudbrightshire, and James Nicoll, Strathmiglo—equal; 33. Andrew Wallace, Prestonpans, and James Watt, New Zealand—equal; 35. P. C. Lüttig, Cape Colony; 36. William Wilson Wood, Leith, and A. D. Yule, Arbroath—equal; 38. T. A. Glover, Maxwelltown, and George J. Jenkins, Victoria — equal; 40. John Macmillan, Edinburgh, and Mathias Williams, South Wales—equal; 42. S. H. Carr, Carlisle; 43. Arthur Wood, Wellington; 44. F. J. C. Botha, Cape Colony; Walter Johnston, Preston, and J. Trevor Williams, North Wales—equal; 47. Henry S. Brockway, Madgascar, and Thomas Grainger, Yorkshire—equal; 49. John Bruce, Perthshire; John F. Holden, Preston, and Thomas Pretsell, Lanarkshire—equal; 52. Horace C. Colman, Peterborough; James M. Grieve, Millport; Thomas Fair Johnston, Ormiston; F. M. Purchas, New Zealand, and D. Cameron Wallace, Ireland—equal.

THOMAS R. FRASER, M.D., *Professor.*

PRACTICAL PATHOLOGY.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—1. William Mailer, Perth.
SECOND-CLASS HONOURS.—2. L. Rose, Blair Athole.

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—1. Stuart M'Donald, Kirkcudbrightshire; 2. C. B. Crampton, London; 3. Arthur Dickson, Montrose; J. T. Hewetson, Cumberland, and A. P. Low, Arbroath—equal (*Medallists*); 6. J. Bannerman, Southport; George P. Henderson, Redcar, and William Lillie, Edinburgh—equal; 9. John Eason, Leith; F. W. Twidale, India, and G. F. Whyte, Nairnshire—equal; 12. Daniel Brough, Musselburgh, and Rhoades Haygarth, Yorks—equal; 14. Lewis Grant, M.A., Strathspey, and David Roger, Johnshaven—equal; 16. A. Corsar Sturrock, M.A., Linlithgow; 17. W. H. C. Forster, England, and J. Stoddart, Berwick—equal; 19. D. F. Dewar, Edinburgh; J. A. Forrest, Antigua, and G. J. Jenkins, Victoria—equal; 22. Alex. W. G. Clark, Whitburn; Percy W. Shepherd, Yorkshire; James Stenhouse, Scotland, and Andrew Wallace, Prestonpans—equal; 26. David D. Gold, Leven; Noel Maudsley, Appleby; F. RobertOmplé, Mauritius; J. T. Shirlaw, Loanhead, and F. O. de Souza, Straits Settlements—equal; 31. C. J. Gorringe, Tasmania; J. H. Henderson, New Zealand; F. Hallard Merry, Edinburgh, and Oswald Raitt, Nairn—equal; 35. Walter F. Eason, Lanarkshire, and F. Gardiner, Edinburgh—equal; 37. Fred. R. Jones, Leicester; 38. J. Kirk, Edinburgh; Angus Macdonald, M.A., Edinburgh; W. J. Penfold, Brampton; D. Waterston, Glasgow, and A. D. Yule, Arbroath—equal; 43. H. S. Brockway, Madagascar; George Henderson, Dundee; T. H. Macfie, Whithorn, and Arthur D. Peill, Madagascar—equal; 47. J. K. Raymond, Grey Town.

SECOND-CLASS HONOURS.—48. James Allison, Lanarkshire; G. J. Blackmore, New Zealand; H. C. Colman, Peterborough, and J. C. Hastings, Co. Donegal—equal; 52. W. H. Goldie, New Zealand; J. G. P. Murray, England, and G. Ll. Roberts, Wales, —equal; 55. Harold Nuttall, Liverpool, and Robert Thornton, Arbroath—equal; 57. R. Craven, Lancashire; James Davidson, Berwick; J. R. Lord, Blackburn; H. M. Morton, Cumberland; Hugh Richardson, India; D. R. Rowlands, N. Wales, and W. H. Steele, England—equal; 64. W. J. Buchanan, Rangoon, and James Watt, New Zealand—equal; 66. W. J. C. Coulthard, Cumberland; W. J. A. Erskine, Edinburgh; John Henderson, County Derry; D. H. Hutchinson, Bristol; James S. Martin, Portlaw; I. J. van der Merwe, Cape Colony, and A. T.

Sampson, Bedford—equal; 73. D. N. Anderson, Bengal, and W. Leslie Lyall, Leven—equal; 75. Scott Carmichael, Edinburgh; Ralph E. Loney, Berwickshire; Charles MacLaurin, Sydney, N.S.W., and John Macmillan, Edinburgh—equal; 79. Alexander J. W. Buchanan, Edinburgh, and J. Crawford, Ceylon, —equal; 81. S. Osborne Browne, Londonderry; 82. J. M. Grieve, Millport, Bute; W. H. Hill, Roxburghshire; Duncan M. Mackay, Hull, and J. C. Stuart, England—equal; 86. Thomas M. Ness, Dundee, and F. S. C. Thompson, Queensland—equal; 88. J. Bruce, Perthshire; J. T. Titterton, Staffordshire, and G. A. Welsh, Edinburgh—equal; 91. A. S. Brass, Jamaica; J. Sholto Douglas, Demerara; Thomas Grainger, Yorkshire, and A. Robertson, Stornoway—equal; 95. Alan Y. Greenwood, India; Walter Johnson, Lancashire, and T. D. Sadler, Edinburgh—equal; 98. S. H. Carr, Carlisle; 99. F. A. Hardie, Nottingham; 100. James Nicoll, Strathmiglo; A. L. Pentland-Smith, M.A., B.Sc., Fifeshire; and E. F. Wills, Madagascar —equal; 103. P. J. Munn, Edinburgh; 104. D. Morison, Stornoway; 105. W. G. C. Geekie, Perthshire.

W. S. GREENFIELD, M.D., *Professor.*

OPERATIVE MIDWIFERY AND GYNECOLOGY.

First-Class Honours.—1. A. M. Easterbrook, England, and W. E. Fothergill, M.A., B.Sc., England—equal (*Medallists*); 3. J. G. M'Naughton, Scotland; 4. D. A. Welsh, M.A., B.Sc., Scotland; 5. R. A. G. Constantian, Cilicia; 6. J. N. Craig, Scotland.

Second-Class Honours.—7. J. D. M'Millan, England; 8. Thomas Watson, Scotland; 9. W. Millar, Scotland.

A. R. SIMPSON, M.D., *Professor.*

MEDICAL JURISPRUDENCE.

First-Class Honours.—1. Colin M'Vicar; 2. James D. Macrae; 3. J. R. Gilmour (*Medallists*); 4. W. D. Adams, and Walter E. Johnstone—equal; 6. James M. Beattie, and James M'K. Wishart —equal; 8. Thomas Gibson, M.A.; 9. O. Chapman.

Second-Class Honours.—10. S. Fraser, and G. C. Laing—equal; 12. J. W. T. Walker; 13. F. O. Mell; 14. E. D. W. Greig; 15. W. L. Martin; 16. H. Münster and Charles E. Potter—equal; 18. D. J. Jones, T. H. Jones, and S. H. B. Allison—equal; 21. T. M. Bartlett; 22. "Gonet;" 23. Alexander Dall, T. H. C. Derham, and R. S. Bond—equal; 26. T. C. Penfold; 27. J. K. Jamieson; 28. A. G. Fenn; 29. D. M. R. Crichton; 30. D. Landsborough and C. C. Aitken—equal; 32. J. A. Gibson; 33. W. H. Thomson, and Neil M'Vicar—equal; 35. John A. Laing; 36. J. A. Watson; 37. A. J. Campbell; 38. J. W. L. Spence.

DOUGLAS MACLAGAN, Kt., M.D., *Professor.*

MENTAL DISEASES.

FIRST-CLASS CERTIFICATE.—1. James Anderson, M.B. (*Medallist*); 2. R. W. Briggs, and Eugene A. Darling—equal; 4. Samuel Edgerley, M.B.; 5. Frank Oliphant; 6. J. M. Menzies, and Lachlan Grant—equal; 8. W. Russell Strapp; 9. Reginald St G. Bond; 10. A. Hill Buchan; 11. James M. Rutherford.

T. S. CLOUSTON, M.D., *Lecturer.*

DISEASES OF THE EYE.

FIRST-CLASS HONOURS.—1. Lachlan Grant, Scotland, and John S. Flett, Kirkwall—equal (*Medallists*); 3. Robert W. Briggs, Derby; 4. George A. Dickson, Edinburgh; 5. T. R. S. Sibbald, Scotland, and W. Russell Strapp, Natal—equal; 7. Samuel Edgerley, West Africa; 8. W. M'D. Selby, Wigtownshire.

SECOND-CLASS HONOURS.—9. F. V. Thomas, India; 10. J. M. Menzies, Edinburgh; 11. T. M. Bartlett, Jamaica; 12. S. H. B. Allison, Londonderry, and G. H. Monro, New Zealand—equal; 14. G. N. Alexis, Grenada, B.W.I.

D. ARGYLL ROBERTSON, M.D., *Lecturer*

WINTER SESSION, 1893-94.

CHEMISTRY.

ROBERT WILSON MEMORIAL PRIZE.—Andrew Hunter, Edinburgh.

FIRST-CLASS HONOURS.—1. Andrew Hunter, Edinburgh, and A. C. Sandstein, New Zealand—equal; 3. Alfred T. Gailleton, Perth, and A. C. M'Gilchrist, Islay—equal; 5. George Lyon, Ardlamont; 6. William N. Barker, Newburgh-on-Tay; John Cameron, Laurencekirk; and D. B. Waters, Wick (*Medallists*)—equal; 9. John F. Cameron, Perthshire; 10. James Paterson, Edinburgh, and R. F. M'Nair Scott, Singapore—equal; 12. A. R. Cook, Fountainhall; 13. S. F. Ashby, Southport, and Duncan Forbes, Perth—equal; 15. W. P. Meldrum, Mauritius, and A. H. Thompson, Barrow-in-Furness—equal; 17. Andrew Young, Perth; 18. John D. Comrie, Edinburgh; J. Spencer Low, London; and James Scott, Edinburgh—equal; 21. John H. Gordon, Kirkcudbrightshire, and J. H. Rhodes, Kendal—equal; 23. R. W. T. Ewart, Moffat; Charles Forsyth, Edinburgh; and Walter G. Napier, Edinburgh—equal; 26. Wm. D. Ritchie, Edinburgh, and Edgar Somerville, Leek—equal; 28. John M. Campbell, Montrose, and Robert Pugh, Wales—equal; 30. F. A. Barnardo; S. J. Grinsell, Edinburgh; James Miller, Grand Canary; W. H. Prentice, Edinburgh; Andrew C. Smith, Dum-

friesshire; and George Thomson, Edinburgh—equal; 36. R. Crawford, Bradford, and Mowbray Ritchie, Edinburgh—equal; 38. John Alcindor, Trinidad; 39. Andrew Gilmour, Edinburgh; Graeme Hamilton, Ashton-under-Lyne; C. King, Demerara; Lawrence H. B. Mills, Norwich; and Ward Smith, Leek—equal.

SECOND-CLASS HONOURS.—44. George Dick, Wick; 45. Donald N. MacVean, Edinburgh, and William Raine, Darlington—equal; 47. R. Gibson, Wigtownshire; 48. William Bell, Barrow-in-Furness; S. Branch, St Kitts; D. M. Burden, Dundee; J. P. Longstaff, Edinburgh; and John W. M'Kenzie, Inverness—equal; 53. Adam Brown; Robert Cumming, Montrose; R. J. Dick, Dunbar; R. W. Mackenna, Dumfries; James M. Reid, Edinburgh; and I. Shalaby, Cairo—equal; 59. A. Allsebrook, Notts; J. H. O'Donoghue, Iowa, U.S.A.; and Alick Wood, Douglas—equal; 62. G. E. J. King, Cheltenham; D. V. M'Intyre, Arbroath; and William Robinson, Bandon—equal; 65. G. de Labat, South Africa, and Alfred Shearer, Orkney—equal; 67. W. Bennett, Cork; John M. Bowie, Edinburgh; M. Corry, Donegal; B. S. Hyslop, Leven; W. Lockerbie, Edinburgh; G. B. Pemberton, Dublin; J. A. C. Smith, Edinburgh; and Sidney Unwin, London—equal; 75. H. de Boissière; William Craig; Charles W. Donald, Ormiston; Alexander B. George, Montrose; and William Tarr, Taunton—equal; 80. James R. Anderson, Orkney; C. S. Brebner, Darlington; G. J. Macgillivray, Edinburgh; William Macniven, Fort-William; and P. A. Salomons, Edinburgh—equal; 85. J. C. M'Conaghey, India; E. C. G. Maddock, Hull; M. Marshall, Liberton; James Masson, Edinburgh; and Robert Ritchie, Edinburgh—equal; 90. E. M'Culloch, Musselburgh; T. R. Matthews, Jamaica; J. Monroe, Edinburgh; George F. B. Simpson, Edinburgh; and C. S. Steavenson, Darlington—equal; 95. James Hay, Edinburgh; Hugh M'Calman, Edinburgh; James A. Raeburn, Edinburgh; David Wardrop, Cumnock; and A. Hamilton Wood, Falkland—equal; 100. C. A. B. Horsford and Henry Wade, Falkirk—equal; 102. S. Harvard Johnson, Sheffield; K. N. Kouzinopoulos, Asia Minor; James Macpherson, Edinburgh; W. Ernest Roberts, Chester; and W. E. Tellet, Bridge of Allan—equal; 107. Frank F. Kerr, Canada; John M'Gregor, Auchterarder; D. W. Maclagan, Edinburgh; G. N. W. Thomas, Newport; and W. E. J. Wallis, Hampshire—equal; 112. B. Greig, Edinburgh; A. Kirkpatrick, Ballycastle; James Leggate, Edinburgh; and G. E. Twigge-Molecey—equal; 116. G. A. Mackay, Durham; W. Moncrieff Paul, Dollar; and D. J. Tweedie, Bo'ness—equal; 119. W. Carlyle, Wilson, Crieff; 120. P. H. Henderson, Edinburgh, and R. A. Macneill, Glasgow—equal; 122. J. G. Bell, Australia; C. H. Durrant, and Thomas A. Price, Brisbane—equal; 125. J. K. Calder, Kirkwall; Wilfrid J. Dilley; E. G. Ford, Yorkshire;

H. T. Holland, Cornhill-on-Tweed; H. Macfarlane; and J. Andrew Thompson, Wigtownshire—equal.

PRACTICAL CHEMISTRY.

First-Class Honours.—1. Alfred T. Gailleton, Perth; 2. D. B. Waters, Wick; 3. Andrew Hunter, Edinburgh; and William D. Ritchie, Edinburgh—equal; 5. F. A. Barnardo, Bournemouth, and A. C. M'Gilchrist, Islay—equal (*Medallists*); 7. William N. Barker, Newburgh-on-Tay; 8. Andrew Gilmour, Edinburgh; 9. Andrew Young, Perth; 10. Robert J. Dick, Dunbar; George Lyon, Ardlamont; and R. F. M'Nair Scott, Singapore—equal; 13. James R. Anderson, Orkney, and J. Spencer Low, London—equal; 15. Walter G. Napier, Edinburgh, and A. H. Thompson, Barrow-in-Furness—equal; 17. Mowbray Ritchie, Edinburgh; 18. D. M. Burden, Dundee, and R. Crawford, Bradford—equal; 20. A. C. Sandstein, New Zealand; Andrew C. Smith, Dumfriesshire; and A. Hamilton Wood, Falkland—equal; 23. S. F. Ashby, Southport; A. R. Cook, Fountainhall; Robert Cumming, Montrose; Duncan Forbes, R. A. Macneill, Glasgow; Ward Smith, Leek; and George Thomson, Edinburgh—equal; 30. William Bell, Barrow-in-Furness; M. Corry, Donegal; W. P. Meldrum, Mauritius; J. H. Rhodes; and James Scott, Edinburgh—equal; 35. D. V. M. Adams, Scotland; John M. Bowie, Edinburgh; R. W. T. Ewart, Moffat; G. de Labat; and W. H. Prentice, Edinburgh—equal; 40. Hugh M'Calman, Edinburgh; 41. John Alcindor, Trinidad; J. M. Nisbet, Edinburgh; and John A. Smail, Edinburgh—equal; 44. C. King, Demerara; James Miller, Grand Canary; and Edgar Somerville, Leek—equal.

Second-Class Honours.—47. H. de Boissière, Trinidad; C. S. Brebner, Darlington; G. E. J. King, Cheltenham; and P. A. Salomons, Edinburgh—equal; 51. C. Forsyth, Edinburgh; Alex. B. George, Montrose; S. J. Grinsell, Edinburgh; and Graeme Hamilton, Ashton-under-Lyne—equal; 55. T. R. Matthews, Jamaica; Alfred Shearer, Orkney; and Henry Wade, Falkirk—equal; 58. Peter H. MacDonald, Leith, and James M. Reid, Edinburgh—equal; 60. George Dick, Wick, and W. Lockerbie, Lockerbie—equal; 62. John D. Comrie, Edinburgh; D. W. Maclagan, Edinburgh; and Robert Ritchie, Edinburgh—equal; 65. John M'Gregor, Auchterarder; William Macniven, Fort-William; G. Malthouse, Ripon; Laurence H. B. Mills, Norwich; William Tarr, Taunton; and R. C. Verley, Jamaica—equal; 71. William Craig, Kelso; Cyril H. Durrant, St Vincent; E. G. Ford, Yorkshire; John H. Gordon, Kirkcudbrightshire; and D. V. M'Intyre, Arbroath—equal; 76. P. H. Henderson, Edinburgh; B. S. Hyslop, Leven; John W. M'Kenzie, Inverness; and Thomas A. Price, Brisbane—equal; 80. R. Gibson, Wig-

townshire; 81. Ernest W. Lewis, S. India; Anthony Scott Parker, Cheltenham; and James Paterson, Edinburgh—equal; 84. Charles W. Donald, Ormiston; W. E. Hutchison, Moffat; A. F. Innes, Edinburgh; and P. L. M'All—equal; 88. F. J. Gray and A. Kirkpatrick, Ballycastle—equal; 90. Albert W. Bean, Edinburgh; Frank F. Kerr, Canada; Robert W. MacKenna, Dumfries; and J. A. C. Smith, Edinburgh — equal; 94. E. M'Culloch, Musselburgh; H. Macfarlane, G. J. Macgillivray, Edinburgh; James Macpherson, Edinburgh; T. Meldrum, Edinburgh; and T. R. Robertson, Edinburgh—equal; 100. A. M'Watt Green, Skye; James Masson, Edinburgh; A. K. Traill, Brechin; and Alick Wood, Douglas—equal; 104. S. Branch, St Kitts; James M. Gray, Perthshire; G. E. Twigge-Molecey, Elbert Steyn, Cape of Good Hope; and James C. Tod, Edinburgh—equal; 109. William Bennett, Cork; A. A. Gunn, Strathpeffer; William Raine, Darlington; Arthur H. Thomas, Cornwall; D. J. Tweedie; David Wardrop, Cumnock; and W. Carlyle Wilson, Calcutta—equal; 116. A. Dingwall Fordyce, Edinburgh, and James T. P. Heatley, Northumberland—equal; 118. Andrew C. Brown, Liverpool; Alexander Goodall, Ayrshire; B. Greig, Edinburgh; James Hay, Edinburgh; Robert Pugh, Wales; and A. B. Shed, Edinburgh—equal; 124. H. T. Holland, Cornhill-on-Tweed, and I. Shalaby, Cairo—equal; 126. Ivie Aird, Lockerbie; James Leggate, Edinburgh; and C. S. Steavenson, Darlington—equal; 129. J. G. Bell, Australia; James Burnet, Edinburgh; C. H. G. Gard, Inverness; E. C. Maddock, and G. N. W. Thomas, Newport—equal; 134. Edward Cyriax; Wilfrid J. Dilley, Madeira; C. M. Pearson, Edinburgh; Alexander Scott, Dunbar; and Alexander Speirs, Edinburgh—equal; 139. J. M. Cuthbert; S. Harvard Johnson; James A. Raeburn, Edinburgh; and F. E. Robinson, Woolwich—equal.

ALEX. CRUM BROWN, M.D., *Professor.*

BOTANY.

First-Class Honours.—1. Charles W. Donald, Scotland (*Medallist*).
Second-Class Honours.—2. Charles W. Breeks, India, and John G. Mitchell, Sutherland—equal; 4. Edward Dowden, Ireland.

PRACTICAL BOTANY CLASS.

First-Class Honours.—1. William M. Paul, Scotland (*Medallist*); 2. Leonard J. M. Deas, India.
Second-Class Honours.—3. Patrick A. Leighton, Scotland.

For Microscopical Preparations.

Second-Class Honours and Prize.—William M. Paul, Scotland.

I. BAYLEY BALFOUR, M.D., D.Sc., *Professor.*

ZOOLOGY.

First-Class Honours.—1. A. C. Sandstein; 2. J. Y. Simpson (*Medallists*); 3. J. H. Rhodes; 4. C. W. Melville; 5. R. Crawford.

Second-Class Honours.—6. C. M. Pearson; 7. J. G. Mitchell; 8. F. J. Gray, and J. M. Reid—equal; 10. C. H. G. Gard; 11. D. MacVean; 12. T. Henderson and A. M. M'Intosh—equal.

PRACTICAL ZOOLOGY.

First-Class Honours.—1. R. Gibson and W. M. Paul—equal (*Medallists*).

Second-Class Honours.—3. E. W. Lewis; 4. G. de Labat; 5. T. Henderson and J. H. Rhodes—equal; 7. A. C. Sandstein.

J. C. EWART, M.D., *Professor.*

PHYSICS.

First-Class Honours.—1. A. T. Gailleton (*Medallist*); 2. W. N. Barker, C. King, and G. E. King—equal; 5. R. Gibson; 6. W. Bell and J. Bowie—equal; 8. J. M. Gray; 9. E. M. Lithgow; 10. A. B. George; 11. J. W. Mackenzie and L. H. B. Mills—equal; 13. G. Dick.

Second-Class Honours.—14. W. Lockerbie and A. Wood—equal; 16. J. M. Campbell and G. J. R. Carruthers—equal; 18. G. E. T. Molecey and D. Wallace—equal; 20. E. M'Culloch; 21. T. A. Price; 22. P. H. Macdonald and W. Macniven—equal; 24. A. H. Thompson and W. E. J. Wallis—equal; 26. W. Robinson; 27. D. W. Maclagan and F. E. Robinson—equal; 29. J. A. C. Smith; 30. E. G. Ford and T. E. Hincks—equal; 32. B. S. Hyslop and J. Miller—equal; 34. F. H. Stirling; 35. A. Shearer and A. B. Shed—equal; 37. A. W. Bean and A. Fordyce—equal.

P. G. TAIT, M.A., *Professor.*

ANATOMY.

Students of the Third Year.

senior practical anatomy.

First-Class Honours.—1. A. P. Low, Arbroath; R. G. Ralston, Glasgow; J. C. Stuart, M.A., Yorkshire; Andrew Wallace, Prestonpans; and A. D. Yule, Arbroath—equal—(*Medallists*); 6. W. H. Carse, Kirkcudbrightshire; John Eason, Linlithgow; J. A. Forrest; Rhodes Haygarth, Keighley; Walter Johnson, Preston; J. R. Lord, Blackburn; J. G. Murray, Gosport; H.

Carden Pearson, Tamworth ; A. C. Sturrock, M.A., Linlithgow ; H. S. Sturrock, Fifeshire ; and James Watt, New Zealand—equal ; 17. Daniel Brough, Musselburgh ; and W. H. Robb, Dumfries—equal ; 19. W. J. Buchanan, Rangoon ; John Crawford, Ceylon ; Fred. Gardiner, Edinburgh ; James Gray, Dundee ; George Henderson, M.A., Perthshire ; J. J. Hewison, M.A., Edinburgh ; J. L. Marjoribanks, East Lothian ; P. H. Macfie, Whithorn ; and J. E. W. Somerville, New Zealand—equal ; 28. John Ballantyne, Kirkcudbrightshire ; James Bannerman, Southport ; H. C. Colman, Peterborough ; W. F. Eason, Carluke ; J. H. Henderson ; J. F. Lindsay, Lanarkshire ; W. M. Macdonald, New Zealand ; W. J. Penfold, Brampton ; Hugh Richardson, India ; G. E. Stewart, Canada ; G. A. Welsh, Edinburgh ; and J. Trevor Williams, Denbighshire—equal ; 40. James Allison, Lanarkshire ; A. W. Bowie, Edinburgh ; W. H. C. Forster, Northumberland ; Lewis Grant, Strathspey ; F. A. Hardy, Nottinghamshire ; John Henderson, Londonderry ; John Hirst, Bradford ; F. R. Jones, Leicester ; James Lee, Belfast ; M. W. Manük, Calcutta ; H. M. Morton, Cumberland ; O. St John Moses, Calcutta ; A. D. Peill, Madagascar ; and Alex. Steven, Edinburgh—equal ; 54. H. J. Cardale, Devonport ; Arthur Dickson, Montrose ; D. D. Gold, Fifeshire ; J. B. Hay, Cape Colony ; G. P. Henderson, Redcar ; G. F. Lundie, Cape Colony ; F. H. Merry, Edinburgh ; and Robert Thornton, Arbroath—equal ; 62. W. J. C. Coulthard, Cumberland ; Richard Craven, Lanarkshire ; A. W. Easmon, West Africa ; C. Monro Hector, New Zealand ; J. S. Martin, Waterford ; J. A. Milroy, Wigtownshire ; D. R. Rowlands, Wales ; James Stenhouse, Edinburgh ; and W. W. Wood, Leith—equal ; 71. W. J. Erskine, Edinburgh ; Charles Maclaurin, Sydney ; B. J. G. Sibbald, Edinburgh ; and L. A. Williams, Chester—equal ; 75. James Davidson, Berwick ; A. M. Fleming, Partick ; William Lillie, India ; W. T. Ritchie, Edinburgh ; David Roger, Montrose ; A. L. Pentland Smith, Fifeshire ; and F. O. de Souza, Singapore—equal ; 82. John Bruce, Perthshire ; Scott Carmichael, Edinburgh ; Stuart Macdonald, Castle-Douglas ; and F. W. Twidale, India—equal ; 86. W. R. Mander, Oxfordshire ; G. Ll. Roberts, Wales ; F. S. C. Thompson, Queensland ; and J. R. Hall-Walker, Edinburgh—equal ; 90. Noël D. Bardswell, Surrey ; and John Macmaster, New South Wales—equal ; 92. S. H. Carr, Carlisle ; D. M. Coates, Perth ; and J. D. M'Crindle, Scotland—equal ; 95. A. G. Carment, Edinburgh ; George Drummond, Doune ; and John Macmillan, Edinburgh—equal ; 98. L. M. Cairns, Galashiels ; R. E. Loney, Berwickshire ; Harold Malcolmson, Co. Down ; and William Mowat, Haddington—equal ; 102. Thomas Grainger, Hawes ; and F. M. Purchas, New Zealand—equal ; 104. A. S. Trapaga, Mexico ; and David Waterston, Edinburgh—equal ; 106. Charles Porter, Edinburgh ; 107.

D. A. Cameron; J. F. Holden, Preston; A. H. Macpherson, Larbert; James Nicoll, Perthshire; and T. D. Sadler, Edinburgh —equal.

Second-Class Honours.—112. J. E. Martin, Liverpool; 113. Eustace Arkwright, London, and Robert Irvine, Londonderry—equal; 115. Thomas Pretsell, Belfast; 116. W. B. Thain, Dundee; 117. J. W. L. Spence, Edinburgh; 118. A. H. Algar, Ireland.

The following gentlemen obtained full marks in four examinations, but were unavoidably absent from the fifth :—

Edwin Bramwell, Edinburgh; William Brand, Shetland.

Students of the Second Year.

lectures on anatomy.

First-Class Honours.—1. J. T. Hewetson, Cumberland (*Medal*); 2. W. J. Penfold, Brampton.

Second-Class Honours.—3. J. A. Murray, Mid-Lothian; 4. J. S. Fraser, Cupar; 5. Malur Srinivasa Rau, M.A., Madras.

Class of Practical Anatomy—Fortnightly Examinations.

First-Class Honours.—1. C. M. Cooper, Somersetshire; and Edwin Matthew, Aberdeen—equal (*Medallists*); 3. G. L. Findlay, Natal, and W. J. H. Hislop, New Zealand—equal; 5. R. W. Knox, India; J. D. Slight, Portobello; and J. F. Wolfe, Co. Cork—equal; 8. H. M. Traquair, Edinburgh; 9. W. S. Eaton, Cumberland; G. C. Low, Monifieth; C. D. Lander, Bangalore; J. W. M'Intosh, Edinburgh; R. J. Riddell, Peeblesshire; Gerald Sander, Dorchester; and W. R. Somerset, Derbyshire—equal; 16. David Clow, Kelso; F. W. More, Caithness; F. W. Price; T. A. Ross, Edinburgh; and F. M. Willcox, South Australia—equal; 21. T. M. Callender, Edinburgh; and G. L. Chiene, Edinburgh—equal; 23. J. B. Cusine, Glasgow; R. K. Howden, Natal; and F. M. Parry, India—equal; 26. W. H. Fowler, Edinburgh; and G. S. Small, Brechin—equal; 28. T. F. Johnston, Ormiston, and James Prentice, M.A., Fifeshire—equal; 30. Leonard Boyer, Sleaford; Robert Selby, Wigtownshire; and T. B. Shoolbread, Southsea—equal; 33. H. S. Ballantyne, Dalkeith; Wm. Burns, Forfarshire; and W. W. Maxwell, Newcastle—equal; 36. Patrick Kinmont, Perthshire; and J. A. Shoolbread, Southsea—equal; 38. F. M. Purchas, New Zealand; J. R. Williamson, Surrey; and W. J. Veecock, British Guiana—equal.

Second-Class Honours.—41. R. C. Cunningham, Londonderry.

Students of the First Year.

lectures on anatomy.

First-Class Honours.—1. A. C. M'Gilchrist, Bowmore, Islay; S. J. Grinsell, Edinburgh; and R. F. M'Nair Scott, B.A., Singapore

—equal; W. Carlyle Wilson, M.A., Crieff; and James Paterson, M.A., Edinburgh—equal (*Medallists*); 6. J. H. Rhodes, Kendal; and J. W. Struthers, Edinburgh—equal; 8. J. Spencer Low, London; and Geo. Lyon, Ardlamont—equal; 10. Wm. Bennett, Clonakilty; J. M. Campbell, Montrose; and A. C. Sandstein, Christchurch, New Zealand—equal; 13. J. R. Anderson, Orkney; Wm. Bell, Barrow-on-Furness; C. S. Brebner, Darlington; A. T. Gailleton, Perth; and Miles Johnston, San José, Uruguay—equal; 18. Geo. Dick, Wick; and Edgar Somerville, Leek—equal; 20. Robert Bruce, Edinburgh; Robert Cumming, Montrose; A. D. Fordyce, Edinburgh; and Clarence King, Demerara—equal; 24. W. N. Barker, Newburgh-on-Tay; E. W. Lewis, Bellary; P. H. MacDonald, North Leith; R. W. MacKenna, Dumfries; David Wardrop, Cumnock; and D. B. Waters, Wick—equal; 30. L. F. B. Biccard, Cape Colony; S. H. Branch, St Kitts; J. H. Gordon, Kirkcudbrightshire; and D. V. M'Intyre, M.A., Arbroath—equal; 34. G. E. J. King, Cheltenham; and J. W. Mackenzie, Inverness—equal; 36. R. J. Dick, Dunbar; and G. H. List, Haddington—equal; 38. James Allison, Carstairs; R. W. T. Ewart, Moffat; Graeme Hamilton, Ashton-under-Lyne; Hugh M'Calman, Edinburgh; and G. A. Welsh, Edinburgh—equal; 43. J. M. Bowie, Edinburgh; Duncan Forbes, Perth; and A. A. Gunn, Strathpeffer—equal; 46. William Gilbert, Edinburgh; Ward Smith, Leek; and A. R. Wight, Fifeshire—equal; 49. William Craig, Kelso; and W. H. Fowler, Edinburgh—equal; 51. A. J. T. Allan, Edinburgh; Alexander Fordyce, Fauldhouse; C. A. B. Horsford, Edinburgh; J. W. Mathewson, Edinburgh; C. M. Pearson, Edinburgh; J. M. Reid, Edinburgh; George Thomson, Edinburgh; A. K. Traill, Brechin; W. G. Wight, Windygates; and W. O. Williams, Bangor—equal.

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G. A. Brogden, B.A., Edinburgh; T. M. Coutinho, Bombay; H. T. Holland, Cornhill-on-Tweed; Joseph Hunter, Dumfriesshire; John M'Gibbon, Edinburgh; and J. H. P. Paton, Duddingston—equal; 97. William Craig, Edinburgh; James Donaldson, Carnwath, Rowland Hill, London; J. Monroe, Edinburgh; Edward M'Culloch, Musselburgh; and A. S. Whytock, Dundee—equal; 103. Barclay Black, Edinburgh; Alexander Goodall, Barr; Alexander Hunter, Ayr; A. H. Keun, Singapore; and G. E. Twigge-Molecey, Warwickshire—equal; 108. C. L. Dunn, Londonderry; and Thomson Henderson, Italy—equal; 110. Ivie Aird, Lockerbie; A. W. Bean, Edinburgh; and W. E. Tellet, Bridge of Allan—equal; 113. A. G. Boyden, St Just; John M'Gregor, Auchterarder; Thomas Rogerson, Berwickshire; and F. H. Stirling, St Andrews—equal; 117. L. H. B. Mills, Norwich; 118. A. R. Buchanan, Thirsk; A. D. Cameron, Bangalore; A. B. George, Montrose; E. C. G. Maddock, Hull; and G. F. B. Simpson, Edinburgh—equal; 123. F. J. Gray, Edinburgh; 124. William J. Baird, Northampton; D. G. Barkley, Maghera; Robert Cameron, Perthshire; W. W. Garthwaite, Cheltenham; James Leggate, Edinburgh; James Miller, Las Palmas, Grand Canary; and W. W. Thom, Edinburgh—equal; 131. J. S. Bostock; T. E. Hincks, South Wales; John Jamieson, Edinburgh; and A. Whittome, March—equal; 135. T. J. M. Clapperton, Hampshire; R. M. Dalziel, Nagpur; H. Faulkner, Edinburgh; G. R. Laing, Leith; R. A. Macneill, Langholm; James Macpherson, M.A., Edinburgh; E. C. Peake; T. A. Price, Brisbane; J. M. Ross, Edinburgh; G. W. Smith, West Indies; A. H. Thomas, Cornwall; and Henry Wade, Falkirk—equal.

PRACTICAL ANATOMY.

Fortnightly Examinations.

First-Class Honours.—1. B. C. R. Aldren, Malvern; William Bennett, Clonakilty; James Paterson, M.A., Edinburgh; and R. F. M'Nair Scott, B.A., Singapore—equal (*Medallists*); 5. S. H. Branch, St Kitts; George Gatenby, Stockton-on-Tees; and J. W. Struthers, Edinburgh—equal; 8. J. S. Fraser, Cupar; O. A. Gee, Hardwicke; S. J. Grinsell, Edinburgh; and William Hamilton, Middlesborough—equal; 12. John H. Gordon, Kirkcudbrightshire; J. Spencer Low, London; and A. C. Renwick, Gloucester—equal; 15. V. G. Alexander, Edinburgh, and R. J. Dick, Dunbar—equal; 17. James Allison, Carstairs; James Donaldson, Carnwath; and R. W. T. Ewart, Moffat—equal; 20. Miles Johnston, San José, Uruguay; 21. A. J. T. Allan, Edinburgh; William Bell, Barrow-on-Furness; and A. J. M'Clymont, Kirkcudbright—equal; 24. A. M. M'Intosh, Edinburgh; and Thomas Rogerson, Berwickshire—equal; 26. F. J. H. Bateman,

B.A., Norwich, and A. B. MacCarthy, Queenstown—equal; 28. R. B. Black; E. R. Branch, St Kitts; A. M. Little, Annan; D. V. M'Intyre, M.A., Arbroath; and W. E. Tellet, Bridge of Allan —equal; 33. Rowland Hill, London; and W. O. Williams, Bangor —equal; 35. F. G. Ffrench, Jamaica; 36. J. Boyd Jamieson, Edinburgh.

SECOND-CLASS HONOURS.—37. G. W. Smith, West Indies; 38. C. A. B. Horsford, Edinburgh; 39. Thomas Jenkins, Morayshire; and John M'Gibbon, Edinburgh—equal; 41. William Raine, Darlington.

THE SENIOR "JOHN AITKEN CARLYLE" BURSARY in ANATOMY and PHYSIOLOGY was awarded to J. A. Murray, Mid-Lothian.

THE JUNIOR "JOHN AITKEN CARLYLE" BURSARY in ANATOMY and CHEMISTRY was awarded to R. F. M'Nair Scott, B.A., Singapore. *Proxime Accessit.*—A. C. Sandstein, Christchurch, N.Z.

THE SENIOR MACKENZIE BURSARY for proficiency in Dissection was awarded to G. B. Hollings, London, and C. H. Johnston, Melbourne—equal. *Proxime Accessit.*—W. S. Eaton, Cumberland.

THE JUNIOR MACKENZIE BURSARY for proficiency in Dissection was awarded to Miles Johnston, San José, Uruguay, and R. F. M'Nair Scott, B.A., Singapore—equal.

The following gentlemen were awarded Special Certificates of proficiency in Dissecting:—R. J. Dick, Dunbar, and James Paterson, M.A., Edinburgh.

The following gentlemen acted as PROSECTORS TO THE CLASS:—J. T. Hewetson, Cumberland; G. F. Whyte, Nairn; E. F. Bashford, Cheshire; and J. A. Murray, Mid-Lothian.

WILLIAM TURNER, Knt., M.B., *Professor.*

INSTITUTES OF MEDICINE.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—1. J. S. Norwell, Perth; 2. J. A. Milroy, Wigtownshire—(*Medallist*); 3. J. H. Henderson, New Zealand; 4. D. R. Rowlands, North Wales; 5. J. G. P. Murray, Gosport; 6. D. Brough, Dunbar; 7. Lewis Grant, Strathspey; G. F. Lundie, Cape Colony; and A. Wallace, Prestonpans—equal; 10. A. Dickson, Montrose; and J. J. Hewison, Edinburgh—equal; 12. Edwin Bramwell, England; and W. H. Carse, Kirkcudbrightshire —equal; 14. J. Bannerman, Southport; 15. H. Fowler, Edinburgh; 16. O. St John Moses, Calcutta; and F. W. Twidale, India—equal; 18. J. T. Hewetson, Cumberland; G. P. Henderson, Redcar; and H. M. Morton, Longtown—equal; 21. A. P. Low, Arbroath.

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Stuart, M.A., England; 26. A. W. Easmon, West Africa; 27. J. M. Coats, Perth; J. H. Macfie, Whithorn; and J. K. Raymond, Greytown—equal; 30. W. T. Eason, Carluke; J. Stenhouse, Scotland; and A. D. Yule, Arbroath—equal; 33. J. Allison, Lanarkshire; 34. J. Eason, Linlithgow; 35. G. J. Blackmore, New Zealand; and D. Waterston, Edinburgh—equal; 37. W. Johnson, Preston; 38. W. J. C. Coulthard, Cumberland; P. C. Luttig, Cape Colony; and J. A. Thwaits, Cape Colony—equal; 41. M. V. Dee, Ireland; 42. J. Watt, New Zealand; 43. J. M. Grieve, Millport; 44. A. T. Sampson, Bedford; 45. J. F. Lindsay, Lanarkshire; 46. J. Crawford, Ceylon; J. Henderson, Ireland; and C. MacLaurin, Sydney, N.S.W.—equal; 49. L. A. Crooks, Jamaica; R. B. Purves, Bengal; and A. L. Pentland-Smith, Fife—equal; 52. W. H. Hill, Scotland; and B. L. Livingstone-Learmonth, Victoria—equal; 54. W. G. C. Geekie, Perthshire; and G. Ll. Roberts, Wales—equal; 56. A. Steven, Edinburgh; 57. J. B. Blaikie, Roxburghshire; N. D. Bardswell, Kingston-on-Thames; S. H. Carr, Carlisle; A. M. Fleming, Partick; C. J. Gorringe, Tasmania; and W. T. Ritchie, Edinburgh—equal.

JUNIOR DIVISION.

First-Class Honours.—1. C. M. Cooper, England; 2. W. Finlay, Asnières, France; 3. J. B. Cusine, Glasgow; W. H. Goldie, Auckland, N.Z.; and E. H. Jones, North Wales—equal (*Medallists*); 6. P. T. Herring, Canterbury, N.Z.; F. Matthew, Aberdeen; and J. D. Slight, Portobello—equal; 9. J. F. Falconer, Elgin; 10. W. F. Harvey, M.A., South India; F. H. Merry, Edinburgh; and W. M. Milne, Edinburgh—equal; 13. W. Burns, M.A., Forfarshire; and J. R. Lord, Blackburn—equal; 15. G. Gatenby, Stockton-on-Tees; and J. Malcolm, Caithness—equal.

Second-Class Honours.—17. T. A. Ross, Edinburgh; 18. R. W. Anthony, India; J. A. Murray, Mid-Lothian; and H. Y. Taylor, Edinburgh—equal; 21. J. Allison, Carstairs; G. C. Low, Monifieth; and H. M. Traquair, Edinburgh—equal; 24. T. R. W. Armour, Edinburgh; and W. E. M'Kechnie, South Africa—equal; 26. P. Kinmont, Errol; 27. W. Hamilton, Middlesborough; and J. Richards, North Wales—equal; 29. B. C. R. Aldren, Malvern; and C. D. Lauder, Bangalore—equal; 31. A. F. Cameron, Forfarshire; 32. H. S. Ballantyne, Dalkeith; 33. R. K. Howden, Natal; 34. A. H. Watt, Edinburgh; 35. G. L. Findlay, Natal; J. H. L. Morrow, India; and W. M. Wilson, Northumberland—equal; 38. T. Biggam, Wigtownshire; J. S. Fraser, Cupar-Fife; and C. H. Phillips, Barbadoes—equal; 41. O. J. Orchard, New Zealand; 42. W. H. Fowler, Edinburgh; A. J. Ryle, N. Wales; and W. O. Williams, Bangor—equal; 45. D. L. Fisher, Belfast; T. D. MacLaren, Edinburgh; and J.

R. Williamson, Surrey—equal; 48. J. W. Struthers, Edinburgh; and A. R. Wight, Castlewellan—equal; 50. C. H. Johnson, Melbourne; J. B. Jamieson, Edinburgh; F. M. Purchas, New Zealand; and W. J. Veecock, British Guiana—equal; 54. T. M. Callender, Edinburgh; G. W. Miller, Dundee; W. R. Somerset, Derbyshire; and F. M. Willcox, Australia—equal; 58. R. C. Cunningham, Londonderry; W. G. Heath, Antigua; and G. B. Serle, East Linton—equal; 61. R. G. Riddell, Peeblesshire; 62. W. S. Eaton, Cumberland; A. B. MacCarthy, Queenstown; A. J. M'Clymont, Kirkcudbrightshire; J. W. M'Intosh, Scotland; F. W. More, Caithness; T. Rogerson, Greenlaw; C. P. B. Wall, London; G. F. Waterston, Forfar; W. G. Wight, Castlewellan, Co. Down; and J. F. Wolfe, Skibbereen, Co. Cork—equal.

PRACTICAL PHYSIOLOGY.

First-Class Honours.—1. J. Richards, N. Wales—(*Medallist*); 2. H. M. Traquair, Edinburgh.

Second-Class Honours.—3. W. E. M'Kechnie, S. Africa; 4. R. F. Mudie, Dundee; 5. W. J. Veecock, British Guiana; 6. J. R. Williamson, Surrey; 7. W. J. H. Hislop, New Zealand; 8. M. W. Manuk, Calcutta; and G. W. Miller, Dundee—equal; 10. R. P. Hill, Sydney; 11. D. L. Fisher, Belfast.

WILLIAM RUTHERFORD, M.D., *Professor.*

MATERIA MEDICA.

First-Class Honours.—1. J. G. P. Murray, Gosport; 2. David Waterston, Edinburgh; 3. Frederick R. Jones, England; 4. Wm. C. H. Forster, England; 5. James Bannerman, Southport; and James Kirk, Edinburgh—equal (*Medallists*); 7. John. A. Milroy, Wigtownshire; 8. James Stenhouse, Scotland; 9. Daniel Brough, Dunbar; Wm. James Penfold, Brampton; and George Henderson, Scotland—equal; 12. Percy T. Herring, New Zealand.

Second-Class Honours.—13. John T. Hewetson, Cumberland; 14. Frederick Gardiner, Edinburgh; 15. Wm. M. Macdonald, New Zealand; J. D. G. Macpherson, India; and Alex. C. Sturrock, M.A., Linlithgow—equal; 18. Robert M. Leith, Cape Colony; 19. Lewis Grant, Scotland; 20. Herbert F. L. Taylor, Dollar; 21. John C. Stuart, M.A., England; T. H. Macfie, Whithorn; James Gray, Dundee; and James Davidson, Berwick—equal; 25. W. J. C. Coulthard, England; 26. David F. Dewar, Northumberland; George Drummond, Doune; Hugh Richardson, India; and G. Lloyd Roberts, Wales—equal; 30. A. Lewis Husband, Mansfield; and James D. Gilruth, M.A., Arbroath—equal; 32. James Allison, Lanarkshire; John Crawford, Ceylon; Wm. Lillie, India; and Gilbert A. Welsh, Edinburgh—equal;

36. David R. Rowlands, N. Wales; Horace C. Colman, Peterborough; and J. Trevor Williams, N. Wales—equal; 39. George P. Henderson, Redcar; C. J. K. Raymond, Greytown; and G. J. Blackmore, New Zealand—equal; 41. George H. Masson, Trinidad; 42. H. M. Morton, Longtown; 43. Cecil J. Gorringe, Tasmania; and Frank V. Sullivan, Tasmania—equal; 45. J. H. Henderson, New Zealand; 46. J. Leslie Marjoribanks, E. Lothian; J. Brunton Blaikie, Scotland; W. G. C. Geekie, Perthshire; A. D. Yule, Arbroath; and W. Owen Williams, Bangor—equal; 51. E. R. Snijman, South Africa; 52. W. H. Steele, England; and James Watt, New Zealand—equal; 54. Duncan M. Mackay, Hull; and Frank B. Macdonald, Scotland—equal; 56. P. C. Lüttig, Cape Colony; Arthur Dickson, Montrose; and Harry Fowler, Edinburgh—equal; 59. Arthur D. Peill, Madagascar; 60. Alexander J. Park, Australia; and Fred. S. Stamwell, England—equal; 62. Jacob. W. de Vos, Cape Colony; 63. Wilfred E. Gibbon, England; and Charles M. Hector, New Zealand—equal; 65. Scott Carmichael, Edinburgh; 66. Frank M. Willcox, Adelaide, S.A.; 67. John M. Coates, Perth; 68. F. S. C. Thompson, Queensland; 69. Arthur T. Sampson, Bedford; and Archibald L. Pentland-Smith—equal; 71. Sidney H. Carr, Carlisle; Charles Porter, Edinburgh; and John Macmillan, Edinburgh—equal; 74. F. J. C. Botha, Cape Colony; 75. Eustace Arkwright, England; John F. Holden, England; Lawrence Ker, England; Angus Macdonald, M.A., Scotland; and Edward F. Wills, Madagascar—equal.

Charles MacLaurin, Sydney, obtained 66·5 per cent. in two of the class examinations, but was unavoidably absent from the third.

PRACTICAL MATERIA MEDICA.

First-Class Honours.—1. James M. Watson, Argyll (*Medallist*); 2. Wm. J. Penfold, Brampton.

Second-Class Honours.—3. O. St John Moses, Calcutta; 4. David D. Gold, Scotland; 5. Imdad Alí Khan, India.

THOMAS R. FRASER, M.D., *Professor.*

PATHOLOGY.

SENIOR DIVISION.

First-Class Honours.—W. F. Eason, Carluke.

Second-Class Honours.—John Eason, Leith.

JUNIOR DIVISION.

First-Class Honours.—1. A. Corsar Sturrock, M.A., Linlithgow; 2. Daniel Brough, Musselburgh (*Medallists*); 3. J. D. Gilruth, M.A., Auchmithie; 4. J. K. Raymond, Natal; 5. G. F. Lundie,

M.A., Cape Colony; 6. J. H. Henderson, Edinburgh; J. T. Hewetson, Cumberland; and T. H. Macfie, Whithorn—equal.

SECOND-CLASS HONOURS.—9. J. G. P. Murray, Gosport; 10. P. J. Herring, New Zealand; 11. W. E. H. Forster, Northumberland; and H. F. L. Taylor, Dollar—equal; 13. James Davidson, Northumberland; James Gray, Dundee; and A. D. Yule, Arbroath—equal; 16. Horace C. Colman, Peterborough; F. Gardiner, Edinburgh; and Lewis Grant, M.A., Strathspey—equal; 19. J. Kirk, Dumbartonshire; 20. James Allison, Lanarkshire, and Arthur Dickson, Montrose—equal; 22. D. D. Gold, Leven; and W. M. Macdonald, New Zealand—equal; 24. J. Stoddart, Berwick-on-Tweed; 25. William Lillie, India; Angus Macdonald, Edinburgh; and O. S. Moses, Calcutta—equal; 28. D. R. Rowlands, North Wales; 29. John M. Coates, Perth; and John Macmillan, Edinburgh—equal; 31. James S. Martin, Portlaw; 32. G. A. Welsh, Edinburgh; 33. C. Munro Hector, New Zealand, and A. T. Sampson, Bedford—equal; 35. A. L. Husband, Mansfield; 36. D. F. Dewar, Edinburgh; 37. D. M. Mackay, Hull; and A. D. Peill, Madagascar—equal; 39. G. H. Masson, Trinidad; 40. Scott Carmichael, Edinburgh; 41. J. B. Blaikie, St Boswells; and Hugh Richardson, India—equal; 43. N. Bardswell, Kingston-on-Thames; F. M. Callender, Edinburgh; Thomas Grainger, Yorkshire; John Henderson, Ireland; and F. W. Twidale, India—equal.

PRACTICAL PATHOLOGY.

FIRST-CLASS HONOURS.—1. Thomas Gibson and James Gray—equal (*Medallists*); 3. William Mowat; 4. W. O. Wight; 5. A. R. Wight.

SECOND-CLASS HONOURS.—6. B. R. C. Christie; 7. J. D. M'Crindle.

W. S. GREENFIELD, M.D., *Professor.*

SYSTEMATIC SURGERY.

SENIORS.

FIRST-CLASS HONOURS.—1. John Rutherford Gilmour, Edinburgh; 2. J. Purves Stewart, M.A., Edinburgh; and 3. William B. Craig, M.A., Musselburgh—*Medallists*; 4. William A. Stephen, M.A., Ayr; 5. S. H. B. Allison, Ireland; 6. E. H. Fraser, Hull; 7. Ronald M. Clark, Perthshire; Lachlan Grant, Scotland; and W. Russell Strapp, Natal—equal; 10. James M. Beattie, New Zealand; 11. James Gray, Yorkshire; 12. Walter E. Johnstone, M.A., Cromarty, and James D. Macrae, Rossshire—equal; 14. William S. S. Titterton, Staffordshire; 15. J. M. Bartlett, West Indies; Reginald S. Bond, England; William Leslie, Scotland; and Charles E. Potter, Bradford—equal.

SECOND-CLASS HONOURS.—19. William H. Borrie, New Zealand; and A. A. Palmer, New South Wales—equal; 21. James A. Gibson, Edinburgh; R. Eddowes Legat, Scotland; Thomas G. Lusk, Co. Antrim; William Mailer, Perth; W. L. Martin, Edinburgh; and W. de W. Wishart, British Guiana—equal; 27. P. J. H. Ferguson, St Lucia, and James M. Rutherford, Dumfries—equal; 29. Alexander Dall, Cupar-Fife; and James Gillies, Isle of Skye—equal; 31. Charles S. Cantrell, New Zealand; Joseph Michael Pereira, India; and C. M. Simpson, Scotland—equal; 34. John William Anderson, New Zealand; Henry Reynolds Brown, France; Albert G. Fenn, Madrid; John S. Flett, Kirkwall; and Alexander J. M'Ilroy, New Zealand—equal; 39. Robert Grieve, Edinburgh; and J. W. Keighley, Blackburn—equal; 41. William B. Anderson, Scotland; Robert Cross, England; D. M. Lawson, M.A., Stirling; and E. D. Williams, Wales—equal; 45. Rodie Parkhurst, Blackheath; 46. H. A. Leebody, Londonderry; 47. A. Heys, Rossendale; Godfrey Hudson, Yorkshire; J. A. Macfarlane, Trinidad; and J. R. S. Sibbald, Dumfries—equal; 51. Horace L. Lowis, India; 52. David J. S. Burt, New Zealand; Ernest Ralph Dodds, London; E. de Carl Prout, Somersetshire; and James Wood, Scotland—equal; 56. A. D. M. Grant, Sutherlandshire; 57. A. E. Kidd, Dundee, and L. Rose, M.A., Blair-Athole—equal; 59. D. G. MacArthur, Inverary; 60. R. G. Robson, Inverness-shire, and John Kildahl Richards, Australia—equal; 62. William D. Adams, Edinburgh; 63. W. Broster Broster, Southampton, and H. W. G. Lander, Sydenham—equal; 65. Hugh Ross, Tain.

JUNIORS.

FIRST-CLASS HONOURS.—1. William Morrison Milne, M.A., Edinburgh; 2. David Mount Hutton, B.Sc., Liverpool; and 3. William F. Harvey, M.A., South India—(*Medallists*); 4. C. M. Cooper, Somersetshire; 5. Edwin Matthew, Aberdeen, and George S. Small, Brechin—equal; 7. Robert Selby, Wigtownshire; S. E. D. W. Greig, Edinburgh; 9. John Bremner Cusine, Dunning; 10. George B. Serle, East Linton; 11. Bertram C. R. Aldrew, Malvern; Charles D. Lander, Bangalore; John Richards, North Wales; and J. D. Slight, Portobello—equal; 15. George C. Low, M.A., Forfarshire, and John Stevenson, New Zealand—equal; 17. Theodore R. W. Armour, Edinburgh; Patrick Kinmont, Perthshire; and James Prentice, M.A., Fifeshire—equal; 20. Andrew H. Watt, Edinburgh; 21. William Hamilton, Middlesborough, and Cyril H. Phillips, Barbadoes—equal; 23. George L. Chiene, Edinburgh; 24. David Clow, Kelso, and John Malcolm, Caithness—equal; 26. James Donaldson, Carnwath; George Gatenby, Stockton-on-Tees; S. J. Gilfillan, Stirling; Edwin H.

Irwin, Armagh; E. Harries Jones, Ruthvin; and J. F. Wolfe, Cork—equal.

Second-Class Honours.—32. James Allison, Carstairs; R. W. Anthony, Edinburgh; and Thomas Arthur Ross, Scotland—equal; 35. A. Fawns Cameron, Forfarshire; William Finlay, Paris; W. R. Somerset, Derbyshire; and H. T. J. Thacker, New Zealand—equal; 39. William Hope Fowler, Edinburgh; J. S. Fraser, Cupar-Fife; and R. W. Knox, India—equal; 42. T. M. Callender, Edinburgh; 43. R. K. Howden, Natal; 44. Charles H. Kruger, South Africa; W. E. M'Kechnie, South Africa; and James F. Falconer, Elgin—equal; 47. Nathaniel Caine, Liverpool; George H. List, Haddington; William Martin, Ulster; and Albert John Orchard, New Zealand—equal; 51. C. J. Caddick, Staffordshire; R. G. Selby, England; Henry Y. Taylor, Edinburgh; and G. Crewdson Thomas, Bath—equal; 55. F. W. More, Caithness; Robert G. Riddell, Peeblesshire; and Harry Moss Traquair, Edinburgh—equal; 58. Thos. Biggam, Wigtownshire; and R. C. Cunningham, Londonderry—equal; 60. Fred. A. Georgeson, Wick; James Graham, Kirkintilloch; W. J. H. Hislop, New Zealand; A. B. MacCarthy, Dorset; J. H. Patterson, Tasmania; and George Vincent, Trinidad—equal; 66. Alexander J. M'Clymont, Kirkcudbright; and Andrew Gibson, Paisley—equal; 68. William Burns, M.A., Forfarshire; W. H. Goldie, New Zealand; and James W. M'Intosh, Edinburgh—equal; 71. William Evans, Lancashire; William W. Maxwell, Newcastle; and J. Hunter P. Paton, Duddingston—equal; 74. Thomas B. Shoolbread, England; 75. John W. Ingles, Perthshire; and James A. Shoolbread, England—equal; 77. Victor G. Alexander, Scotland; L. W. Davies, Wales; and James Haworth, Lancashire—equal; 80. John George Bailie, Worcester; H. J. Ewald, West Indies; James Forrest, Blackburn; and Thomas F. Johnstone, Ormiston—equal; 84. G. Landsborough Findlay, Natal; and W. J. Veecock, British Guiana—equal; 86. F. M. Parry, India; and Alfred Arthur Robinson, Trinidad—equal.

Honours are given in both Divisions of the Class of Systematic Surgery on the combined results of the Written and Practical Examinations.

PRACTICAL SURGERY.

SENIORS.

Medallist.—William A. Stephen, M.A., Ayr.

Proxime Accesserunt.—J. Purves Stewart, M.A., Edinburgh; and E. H. Fraser, Hull.

Honours.—S. H. B. Allison, Ireland; James M. Beattie, New Zealand; Reginald S. Bond, England; Ronald M. Clark, Perthshire; William B. Craig, M.A., Musselburgh; Alexander Dall,

Cupar-Fife; Albert G. Fenn, Madrid; John Rutherford Gilmour, Edinburgh; Lachlan Grant, Scotland; James Gray, Yorkshire; William Leslie, Scotland; James D. Macrae, Ross-shire; William Mailer, Perth; A. A. Palmer, New South Wales; Joseph Michael Pereira, India; W. Russell Strapp, Natal.

HAROLD J. STILES, M.B., *Demonstrator.*

JUNIORS.

MEDALLISTS.—William Hamilton, Middlesborough; and Robert Selby, Wigtownshire.

PROXIME ACCESSERUNT.—C. M. Cooper, Somersetshire; and John Bremner Cusine, Dunning.

HONOURS.—James Allison, Carstairs; T. R. W. Armour, Edinburgh; George L. Chiene, Edinburgh; David Clow, Kelso; James Donaldson, Carnwath; J. F. Falconer, Elgin; William H. Fowler, Edinburgh; E. D. W. Greig, Edinburgh; William F. Harvey, M.A., South India; David M. Hutton, Liverpool; P. Kinmont, Perthshire; R. W. Knox, India; G. C. Low, M.A., Forfarshire; William Martin, Ulster; J. Malcolm, Caithness; F. W. More, Caithness; William M. Milne, M.A., Edinburgh; Edwin Matthew, Aberdeen; J. Prentice, M.A., Fifeshire; R. G. Selby, England; G. B. Serle, East Linton; J. D. Slight, Portobello; W. R. Somerset, Derbyshire; G. S. Small, Brechin; G. C. Thomas, Bath; H. M. Traquair, Edinburgh; A. H. Watt, Edinburgh.

ALFRED DUKE, M.B., *Demonstrator.*

Mr David Mount Hutton, B.Sc., acted as Class Assistant.

JOHN CHIENE, M.D., *Professor.*

MIDWIFERY.

FIRST-CLASS HONOURS.—1. R. W. Beesley, England; 2. A. Keith Campbell, Scotland; C. M'Vicar, M.A., Scotland; R. Samut, Malta; and W. A. Stephen, Scotland—equal (*Medallists*); 6. W. H. Borrie, New Zealand; E. A. W. English, England; J. S. Flett, Scotland; J. A. Gibson, Scotland; and R. Parkhurst, England—equal; 11. J. M. Beattie, New Zealand; E. R. Holmes, England; T. G. Lusk, Ireland; J. Purves Stewart, M.A., Scotland; and T. M. Bartlett, Jamaica—equal; 16. J. E. Bowes, England; R. Cochrane, Scotland; E. H. Fraser, England; and S. Fraser, Scotland—equal; 20. C. J. Hill Aitken, Scotland; C. F. Lassalle, Trinidad; and R. S. Mowatt, Scotland—equal; 23. S. H. B. Allison, Ireland; Wm. Mailer, Scotland; and J. C. Rait, Scotland—equal; 26. R. S. Bond, England; T. H. C. Derham, England; J. M. Menzies, Scotland; and H. V. Munster, Ireland—equal; 30. A. Dall, Scotland; P. T. Hughes, England; K. MacLean, Scotland; W. C. W. M'Dowell, New Zealand; C. E.

Potter, England ; and F. G. Proudfoot, M.A., Scotland—equal ; 36. W. H. Hunter, Scotland ; and T. H. Jones, England—equal ; 38. J. A. Hunter, Ireland ; and R. E. Legat, Scotland—equal ; 40. R. M. Clark, Scotland ; B. C. Kelly, England ; W. L. Lyall, Scotland ; P. M. Ragg, Scotland ; James Scott, Scotland ; and John Forbes, Scotland—equal ; 46. T. B. Kenny, Trinidad ; J. R. Watson, Scotland ; and J. Wishart, Scotland—equal ; 49. W. B. Craig, M.A., Scotland ; W. Y. Grant, Scotland ; S. S. Messulam, Turkey ; P. Douglas Smith, Tasmania ; and Hugh Steven, Tasmania—equal ; 54. C. W. Owen, Wales ; and A. A. Palmer, New South Wales—equal ; 56. C. Crawford Aitken, Scotland ; G. N. Alexis, West Indies ; A. Bremner, Scotland ; W. H. Bryce, Scotland ; J. Gillies, Scotland ; E. W. D. Greig, Scotland : D. J. Jones, Wales ; J. M. Rutherford, Scotland ; and G. Shaw, Scotland—equal.

Second-Class Honours.—65. O. H. Chapman, England ; W. E. Johnstone, Scotland ; D. Landsborough, Scotland ; and J. C. Rees, Wales—equal ; 69. D. G. MacArthur, Scotland ; C. M. Simpson, Scotland ; E. C. Watts, England ; and A. R. Wilson —equal ; 73. L. C. Edwards, Wales ; H. A. Leebody, Ireland ; J. M. N. Paton, Scotland ; T. R. S. Sibbald, Scotland ; Thomas Smith, England ; and G. P. Yule, Scotland—equal ; 79. V. A. Ross, Scotland ; M. L. M. Vandin, England ; and J. Wood, Scotland—equal ; 82. W. D. Adams, Scotland ; A. J. Copplestone, England ; and J. A. Macfarlane, West Indies—equal ; 85. A. W. M. Anden, England ; C. D. De Waal, Cape Colony ; T. C. Penfold, England ; and James Watson—equal ; 89. A. Heys, England ; D. F. Laidlaw, Australia ; W. Mitchell, Scotland ; and G. W. S. Paterson, Scotland—equal ; 93. W. A. Gibb ; R. W. Monsarrat, England ; J. B. Pearson, England ; and E. de Carle Prout, England—equal ; 97. R. T. Bruce, Scotland ; and D. A. Farquharson, Scotland—equal ; 99. J. Kay Jamieson, Scotland ; J. W. Keighley, England ; J. F. Macphail, Scotland ; and G. W. M'Intosh, Scotland—equal ; 103. E. R. Dodds, England ; and A. G. Fenn, England—equal ; 105. H. R. Brown, Scotland ; T. D. Forbes, Scotland ; and T. Gibson, M.A., Ireland—equal ; 108. J. W. Anderson, New Zealand ; R. Grieve, Scotland ; F. H. Hardman, England ; J. A. Laing, New Zealand ; G. A. Murray, Scotland ; and L. Rose, M.A., Scotland—equal ; 114. H. Bateson, England ; T. Findlay, Scotland ; and F. W. Taylor, England—equal ; 117. J. K. Richards, Australia ; 118. W. H. Mackenzie, Scotland ; 119. R. Y. Anderson, Scotland ; 120. P. J. Munn, Scotland ; 121. James Affleck, Scotland ; G. Hudson, England ; and A. J. M. Paget, England—equal ; 124. A. M. Stafford, Scotland ; 125. D. M. R. Crichton, Scotland ; 126. A. J. MacDougall, Scotland ; 127. A. H. Edwards, Scotland ; and R. G. Selby, England—equal.

The following marks have been given to gentlemen who have attended only two class examinations, and who were prevented from attending the third through illness :—John R. Muir, Scotland, 86 ; W. R. Martine, Scotland, 70 ; R. MacCamon, 67 ; A. P. Percival, 65.

A. R. SIMPSON, M.D., *Professor.*

PRACTICE OF PHYSIC.

SENIORS.

First-Class Honours.—1. Joseph E. Bowes, England ; and J. Purves Stewart, M.A., Scotland—equal ; 3. William J. Garbutt, England (*Medallists*) ; 4. T. R. Scott-Sibbald, Dumfriesshire ; 5. James D. Macrae, Ross-shire ; and W. Russell Strapp, Natal—equal ; 7. R. W. Briggs, Derby ; and J. R. Gilmour, Edinburgh—equal ; 9. Lachlan Grant, Scotland ; 10. W. H. Bryce, Scotland ; and E. H. Fraser, England—equal ; 12. William B. Craig, M.A., Musselburgh ; 13. J. M. N. Paton, Scotland ; 14. J. M. Menzies, Scotland ; and A. M. N. Pringle, Aberdeenshire — equal ; 16. George A. Dickson, Scotland ; John A. Laing, New Zealand ; and Rodie Parkhurst, Kent—equal ; 19. Reginald S. Bond, Wiltshire ; J. D. Gregorson, Argyllshire ; and G. W. S. Paterson, Scotland—equal ; 22. W. Bethune, Fife ; Morton Burnet, Edinburgh ; David A. Johnstone, Carlisle ; G. C. Laing, Scotland ; and S. Stewart Skinner, New Brunswick—equal.

Second-Class Honours.—27. Thomas Gibson, M.A., Ireland ; and F. T. Walmsley, Preston—equal ; 29. P. J. H. Ferguson, West Indies ; 30. Harvie Forester, Scotland, and W. S. Titterton, England—equal ; 32. W. D. Adams, Edinburgh ; R. W. Blair, Scotland ; Tom D. Forbes, Berwick-on-Tweed ; and David Orr, Edinburgh—equal ; 36. F. H. Hardman, Yorkshire ; and C. M. Simpson, Scotland —equal ; 38. G. H. Ruston Harrison, England ; 39. Chas. H. Adamson, Melbourne ; H. P. Elliot, Liverpool ; and W. Y. Grant, Dundee—equal ; 42. James Gray, and James Wood, Burntisland—equal ; 44. D. G. M'Arthur, Inverary ; and F. O. Mell, India—equal ; 46. L. C. Edwards, Liverpool ; and A. D. M. Grant, Scotland—equal ; 48. G. D. Gray, Scotland ; C. J. R. MacFadden, Ireland ; Wm. R. Martine, Haddington ; and J. J. Hedley Wood, India—equal ; 52. E. D. Williams, Wales ; 53. R. A. Milne, Crieff ; and C. H. D. Moore, England—equal ; 55. J. K. Richards, Australia ; Hugh Ross, Ross-shire ; and T. M. Scott, Scotland—equal ; 58. J. O. Goldie, London ; and Godfrey Hudson—equal ; 60. E. C. More, England ; 61. Alexander Rodger, Edinburgh ; 62. A. J. M. Paget, Cambridge ; 63. Ayatullah, India, and Robert Cross, England—equal ; 65. J. M. Pereira, India ; and P. J. Munn, Edinburgh—equal.

Absent from one Examination.—*First-Class Honours*—Murray B.

Steuart, Edinburgh. *Second-Class Honours.*—Harold Downes, England; A. J. Macdougall, India; W. B. Broster, Southampton; H. H. Gill, England.

JUNIORS.

First-Class Honours.—1. Thomas Finlay, Edinburgh; 2. T. J. Jamieson, Edinburgh; 3. A. Keith Campbell, Montrose; 4. James M. Beattie, N.Z.; 5. W. H. Barrie, N.Z.—*Medallists*; 6. C. F. Lassalle, Trinidad; and Robert Cochrane, Larbert—equal; 8. William A. Stephen, Ayr; and Charles E. Potter, Glasgow—equal; 10. T. M. Bartlett, Jamaica; T. H. C. Derham, England; James A. Gibson, Scotland; W. E. Johnstone, M.A., Cromarty; Colin M'Vicar, M.A., Scotland; James C. Rait, Scotland; and John Struthers, Scotland—equal; 17. James Gillies, Skye; E. D. W. Greig, Edinburgh; R. F. S. Mowat, Haddington; H. V. Munster, Belfast; and T. E. Watson, Ireland—equal; 22. S. H. B. Allison, Ireland; J. W. Anderson, N.Z.; Thomas G. Lusk, Ireland; and George Shaw, Edinburgh—equal; 26. Frank G. Proudfoot, M.A., Scotland; 27. S. Fraser, Scotland; and T. H. Jones, England—equal; 29. E. A. W. English, Bath; John Forbes, Muir of Ord; and J. R. Watson, Falkirk—equal; 32. D. M. Lawson, Scotland; Kenneth Maclean, Scotland; R. G. Selby, England; and P. Douglas Smith, Tasmania—equal; 36. Percy T. Hughes, England; and D. F. Laidlaw, Victoria—equal; 38. R. W. Beesley, England; Arthur Heys, Rossendale; David Landsborough, Kilmarnock; and J. M. Rutherford, Scotland—equal.

Second-Class Honours.—42. G. N. Alexis, Grenada; E. R. Holmes, England; J. K. Jamieson, Shetland; Thomas B. Kenny, Trinidad; and A. M. Stafford, Scotland—equal; 47. D. M. R. Crichton, Edinburgh; and Alexander Whytt, Birkenhead—equal; 49. A. E. Kidd, Scotland; and James Scott, Dundee—equal; 51. John A. Parsons, Lincoln; 52. W. H. Price, India; and G. D. De Waal, Cape Colony—equal; 54. H. M. Crosby, Australia; John Mackinnon, Scotland; and Fred. W. Taylor, England—equal; 57. James Affleck, Fort-William; and A. R. Wilson, Scotland—equal; 59. H. R. Brown, Scotland; W. H. Hunter, Edinburgh; C. W. Owen, Wales; A. A. Palmer, New South Wales; E. de C. Prout, Somerset; Victor A. Ross, Scotland; and Thomas Smith, England—equal; 66. O. H. Chapman, Cleethorpe; F. H. Fairweather, Huddersfield; Robert Grieve, London; J. A. Macfarlane, Trinidad; M. L. M. Vaudin, England; and W. de W. Wishart, British Guiana—equal; 72. C. C. Aitken, Scotland; Alexander Dall; Wm. Mitchell, Scotland; John R. Muir, Ayr; and Philip M. Ragg, Wellington, Salop—equal; 77. J. D. Doherty, Australia; William Mailer, Perth; and George A. Murray, Edinburgh—equal; 80. William B. Anderson, Dundee; W. Alexander Gibb, Ipswich; and John J. Hewison, Edinburgh—equal; 83. W. L. Lyall, Scot-

land; G. D. M'Rae, Scotland; S. S. Messulam, Constantinople; and E. Croft Watts, Isle of Wight—equal; 87. J. W. Keighley, England; and H. A. Leebody, Londonderry—equal; 89. R. T. Bruce, Edinburgh; William Haig, Scotland; and George P. Yule, Edinburgh—equal; 92. Albert G. Fenn, England; and Andrew J. Gibson, Stornoway—equal; 94. A. J. Copplestone, England, and L. Rose, Blair Athole—equal; 96. Henry Bateson, Bolton; 97. J. H. D. Roberts, Edinburgh; and T. E. E. Roddis, England—equal; 99. E. W. Kerr Scott, Samoa; 100. John Anderson, Sutherland.

Absent from one Examination. — *First-Class Honours.* — Neil M'Vicar, Peeblesshire; John S. Flett, Scotland; A. P. Percival, England; E. F. T. Birrell, Penicuik; K. W. Montsarrat, Kendal. *Second-Class Honours.*—W. C. W. M'Dowell, N.Z.; H. J. Ewald, Hayti; J. G. Masson, England; C. Chandu Lall, India.

T. GRAINGER STEWART, M.D., *Professor.*

SPECIAL COURSE IN PUBLIC HEALTH.

First-Class Honours.—1. James M. Beattie; 2. Thomas Gibson; 3. Osmond H. Chapman (*Medallists*); 4. E. T. Whittaker; 5. Robert Cochrane, William B. Craig, and F. Petty—equal; 8. J. W. T. Walker; 9. W. L. Martin; 10. D. M. R. Crichton; 11. John W. Anderson; 12. J. R. Gilmour, Thomas B. Kenney, William Mailer, and Charles E. Potter—equal; 16. Colin M'Vicar; 17. John A. Hunter; 18. A. G. Fenn, J. K. Jamieson, John R. Muir, and James M. Wishart—equal.

Second-Class Honours.—22. George C. Laing, T. H. C. Derham, S. Fraser, and T. H. Jones—equal; 26. A. J. M'Ilroy; 27. T. M. Bartlett, E. R. Dodds, John S. Flett, and D. G. MacArthur—equal; 31. James D. Macrae; 32. W. D. Adams, G. N. Alexis, and W. R. Strapp—equal; 35. W. H. Borrie, Walter E. Johnstone, F. W. Taylor, and J. R. Watson—equal; 39. R. M. Clark, and J. W. Keighley—equal; 41. A. W. M. Austen, T. G. Lusk, V. A. Ross, and James Scott—equal; 45. James A. Gibson, Robert Grieve, and D. A. Johnston—equal; 48. J. A. Macfarlane; 49. C. F. Lassalle; 50. A. R. Campbell, and William Leslie—equal; 52. Alex. Dall; 53. R. S. Bond, James Fenton, and W. Y. Grant—equal; 56. C. C. Aitken, E. D. W. Greig, A. Heyes, and A. A. Palmer—equal; 60. R. G. Selby; 61. G. P. Yule; 62. G. R. Leighton.

DOUGLAS MACLAGAN, Kt., M.D., *Professor.*

Examination Papers for Degrees in Medicine.

PRELIMINARY EXAMINATION.

ENGLISH.

2nd October 1893.—9 *to* 11 *o'clock.*

FIRST PAPER.

(*Not more than Five Questions to be answered. Questions* 1, 2, *and* 3 *must be attempted by all.*)

1. Write an essay of from two to three pages on one of the following subjects:—
   (*a*) The advantages of foreign travel.
   (*b*) The advantages of colonies to the mother country.
   (*c*) Description of an autumn landscape.
2. Paraphrase—
   "How soft the music of those village bells,
   Falling at intervals upon the ear
   In cadence sweet, now dying all away,
   Now pealing loud again, and louder still,
   Clear and sonorous, as the gale comes on!
   With easy force it opens all the cells
   Where Memory slept. *Wherever* I have heard
   A kindred melody, the scene recurs,
   And with it all its *pleasures* and its pains.
   Such comprehensive *views* the spirit takes,
   That in a few short moments I retrace
   (*As* in a map the voyager his *course*)
   The windings of my way through many years."
3. Analyse the last seven lines of the above passage, and parse the words in italics.
4. Discuss as fully as you can the derivation of five words of classical or Romance origin in the first eight lines.
5. Of what figures of speech are the following sentences examples:—
   (*a*) "The child is father of the man."
   (*b*) "God made the country, and man made the town."
   (*c*) "Give every man thine ear, but few thy voice."
   (*d*) "Coming events cast their shadows before."
   (*e*) "Pity, like a naked new-born babe,
   Striding the blast,"—
6. Explain the following terms: *Climax*, *metonymy*, *heroic couplet*, *didactic poetry*, *simile*, *parallel construction*, *allegory*, *irony*, *tragedy*, *pastoral poetry*.

7. Correct the following faulty sentences :—
   (*a*) The old and new opinions had their active partisans within the walls of the college.
   (*b*) Being without a guide, we took a wrong path used only by the shepherds, and certainly the steepest ever climbed before.
   (*c*) Both his and their safety were at this time endangered by being in Judea.
   (*d*) The mortal remains of the late hero whose sudden departure from among us we had to record a few days since, took place yesterday at Putney Cemetery.
   (*e*) Crippled by no creed, but rather questioning all, Hugo's outlook upon Nature is wide.

2nd October 1893.—11 *to* 1 *o'clock.*

SECOND PAPER.

(*Not more than Eight Questions to be attempted, and of these not more than two from each section.*)

A

1. State what you know about the translations of the Bible into English. What effect had these translations upon the English language?

2. Classify the following writers—(*a*) according to the period in which they flourished ; (*b*) according to the kind of literature in which they were distinguished : Ben Jonson, Edward Gibbon, John Dryden, Joseph Addison, Samuel Butler, Samuel Richardson, Alexander Pope, Richard Steele, Laurence Sterne, John Keats ; and give a short account of the life and works of one poet or one prose writer from the list.

3. Give a short account of the rise of the English drama.

4. Write a short account of the life of John Milton, and name his most important works.

B

5. Describe the plot of "Macbeth," and discuss particularly the part played in it by Lady Macbeth.

6. Give an idea of life and manners among the denizens of the Forest of Arden, as these are depicted in "As You Like It."

7. Describe the rescue at the cliffs near Fairport.

Or,—

8. Sketch the character of Edie Ochiltree from the "Antiquary," or that of Balfour of Burley from "Old Mortality."

C

9. Upon what grounds did Edward I. interfere with the succession to the Scottish throne?

Give a short account of his wars in Scotland.

10. Write notes upon any four of the following: Magna Carta, The Model Parliament, Statute of Labourers, Statute against Livery and Maintenance, Præmunire, Acts of Uniformity and Supremacy (Elizabeth's reign).

11. Give a short account of the deliverance of France from the English through Joan of Arc.

12. Show that from her position at home, and from the attitude of the neighbouring Powers at her accession, Elizabeth was compelled to espouse the Protestant cause.

D

13. Locate the most important Continental seaports on those rivers that flow into the North Sea and the Baltic. What is the character of their trade?

14. Where are the most important manufacturing towns in Scotland situated, and from what Scottish coal-fields can they most readily get their coal-supplies?

15. Trace on a sketch-map the course of the Thames, and mark on it the most important towns in its basin.

16. Take any six of the following towns, and tell where they are situated and for what they are noted: Melbourne, Chicago, Buenos Ayres, Madras, Montreal, Dresden, Malaga, Granada, Axminster, Southampton.

Monday, 2nd April 1894.—9 *to* 11 *o'clock.*

FIRST PAPER.

(*Not more than five Questions to be answered. Questions* 1, 2, *and* 6 *must be attempted by all.*)

1. Write an Essay, from two to three pages long, on either of these subjects:—

(1) Any one of the scenes in *Kenilworth.*

(2) "All that glisters is not gold."

2. Paraphrase:—

My wind, cooling my broth,
Would blow me to an ague, when I thought
What harm a wind too great might do at sea.
I should not see the sandy hour-glass run,
But I should think of shallows and of flats;

And see my wealthy Andrew dock'd in sand,
Vailing her high top lower than her ribs,
To kiss her burial. Should I go to church,
And see the holy edifice of stone,
And not bethink me straight of dangerous rocks,
Which, touching but my gentle vessel's side,
Would scatter all her spices on the stream;
Enrobe the roaring waters with my silks;
And, in a word, but even now worth this,
And now worth nothing?

3. Analyse the following, and parse the words in italics:—"If, *Varney*, it *be* indeed true that Foster knows not *as yet* that the man he saw was Tressilian, I own I *were* unwilling he *should learn* what *nowise* concerns him."

4. Derive the words:—*Acorn*, *April*, *melancholy*, *remorse*, *sarcasm*, *rivalry*.

5. Define *metaphor*, *synecdoche*, *metonymy*, *climax*: and give an example or two of each.

6. What is faulty in each of the following sentences, and why?—

(1) As a point of grammar, I can easily explain how it is wrong to say, "She or I are lost."

(2) Were you saying that the proposal was carried approving of the action of the court by a very large majority?

(3) If one be patient, he can hope to make some progress in speculating on the probable effects of causes presently in operation.

(4) I have little doubt but that we would die of shame and grief at the indignities offered us by age, if it was not that we see so many others as bad or worse off than ourselves.

Monday, 2nd April 1894.—11 *to* 1 *o'clock.*

SECOND PAPER.

(*Not more than eight Questions to be attempted: and, of these, not more than two from each Section.*)

A

1. What were the influences at work shaping the English drama in the early years of Elizabeth?

2. Name some of the leading works of Spenser, Dryden, Bacon, Pope, Addison, Swift, Johnson, Macaulay, Carlyle. Characterise Bacon's style, or Addison's.

3. Name some British novelists before Scott. Give some account of the life and writings of any one of them.

4. What were Milton's characteristics as a prose writer? Indicate Tennyson's characteristics as a poet.

B

5. Sketch the Casket scene in Act iii. of the "Merchant of Venice."

6. What is the historical foundation of Scott's "Kenilworth"; and in what respects has Sir Walter departed from historical fact in his novel?

7. Sketch the character of Leicester.

C

8. What changes in his policy towards Scotland did James VI. make, after he became James I. of England?

9. Give an account of the Covenanters; and mention some of their leaders—clergymen and laymen.

10. Distinguish between Puritans, Presbyterians, and Independents. Who were "the Pilgrim Fathers"?

11. Describe the Parliament of 1654, and point out the grounds of its great importance in English history.

12. Give some account of William of Orange, and of the Revolution of 1688, with reference both to England and to Scotland.

D

13. Define the geographical terms:—Delta, gulf, bight, sierra, steppe, ness, debouchure. Give an example of each of the things thus designated, and state where it is located.

14. Describe the exact position of *eight* of the following:—Scone, Dunfermline, Birmingham, Aberystwyth, Killarney, Carthagena, Ostend, Luzern, Bologna, Benares, Zanzibar. Tell what you know about each.

15. Draw an outline map of North America, and insert (and name) the Gulfs, Bays, and Lakes.

16. What places in Scotland are noted for herring fisheries, and of England for oyster fisheries? Where are the following natural products found:—Salt, mercury, gold; Maize, rice, tobacco?

LATIN—GREEK—MATHEMATICS.

The Papers in Latin, Greek, and Mathematics are the same as the Lower Standard Papers in these subjects for Degrees in Arts and Science.

FRENCH.

Wednesday, 4th October 1893.—9 *to* 12 *o'clock.*

I.

Translate into French:—

Eugénie de Guérin was born in 1805, at the Château of Le Cayla, in Languedoc. Her family, though reduced in circumstances (*appauvrie*), was noble, and even when a woman is a saint she cannot quite forget

that she comes of the stock of (*descendre de*) the Guarini of Italy, or that she counts among her ancestors a Bishop of Senlis, who had the marshalling of (*qui régla*) the French order of battle on the day of Bouvines. Le Cayla was a solitary place, with its terrace looking down upon (*donnant sur*) a stream-bed and valley: "one may pass days there without seeing any living thing but the sheep, without hearing any living thing but the birds." M. de Guérin, Eugénie's father, lost his wife when Eugénie was thirteen years old, and Maurice seven; he was left with four children,—Eugénie, Marie, Erembert, and Maurice,—of whom Eugénie was the eldest and Maurice was the youngest. This youngest child, whose beauty and delicacy had made him the object of his mother's most anxious fondness, was commended by her in dying to the care of his sister, Eugénie.

Maurice, at eleven years old, went to school at Toulouse; then he went to the Collège Stanislas at Paris; then he became a member of the religious society which M. de Lamennais had formed at La Chênaie, in Brittany; afterwards he lived chiefly at Paris, returning to Le Cayla, at the age of twenty-nine, to die. Distance, in those days, was a great obstacle to frequent meetings of the separated members of a French family of narrow means (*dans la gêne*).

II.

Translate idiomatically the following sentences:—

(*a*) There were some soldiers in the house.
(*b*) A wall twenty feet long.
(*c*) You have no right to speak to her.
(*d*) The man with the straw-hat.
(*e*) Were they going away?
(*f*) I came here three years ago.
(*g*) What does it matter?
(*h*) I do not know whether he is hungry.
(*i*) He could have told me.
(*j*) When is he to come back?

III.

Translate into English:—

(*a*) Novarre est une jolie ville, les itinéraires en disent du bien. Industrieuse, c'est autre chose. Des gens bougent, des gens crient, d'autres se rafraîchissent, un grand nombre mendient; mais des gens qui aient l'air d'être occupés, on n'en voit pas. Ceux qui ressembleraient le plus à des laborieux, ce sont les marchands, parce qu'ils s'occupent à demeurer assis sur leur seuil en attendant les pratiques. Non loin de Novarre nous entrons en Lombardie, et notre passe-port, dûment signé à Berne, se trouve redevenir en règle. Nous le croyons du moins, et aussi les employés des bureaux qui ne sont pas en train, cette année, d'y regarder de bien près. On verra plus loin que si, comme la belette de la fable, nous entrons facilement, c'est à sortir que

nous éprouverons quelque difficulté. Déjeuner à Cedriano; il est comme celui d'hier. Pendant que la table de nos cochers accapare (*secures*) viandes et volailles, nous nous répartissons quelques tranches de sole transparente comme de la corne, quelques fragments de côtelettes qui n'ont que deux dimensions, et nous quittons la table avec un appétit bien autrement aiguisé qu'avant de nous y asseoir. Les chevaux aussi passent avant nous; pour eux on accapare l'eau, le service des gens, la sollicitude des maîtres. En revanche, c'est à nous que s'adressent les musiciens ambulants qui, à chaque repas, tirent à vue sur nos bourses. Quelques-unes, qui ne sont pas opulentes, se passeraient de cet assidu commerce avec les Muses.

(*b*) Nous voudrions arriver de bonne heure à Milan; mais nos chevaux, bêtes sages, veulent que nous ayons le temps de compter les piquets et les mûriers qui des deux côtes bordent la route. Nous finissons pourtant par arriver à la grande ville, où nous descendons à l'hôtel du Faucon. Le petit hôte chiffreur et mielleux ne se montre pas, il est dans ses terres. A sa place se montre un hôte moins petit, point mielleux, point chiffreur, et qui ne se tient pas comme l'autre dans son cabinet vitré, accroupi entre un coffre-fort et un grand-livre, inspectant, notant, additionnant et encaissant sans cesse et sans fin. Notre premier soin, c'est de faire toilette; mais à peine sommes-nous éclatants de beauté, que voici la nuit qui nous cache dans ses ombres. Nous nous bornons donc, pour cette première soirée, à dîner d'abord, puis à hasarder quelques reconnaissances au Dôme, au Bazar et ailleurs.

IV.—GRAMMAR.

(*The first three Questions are based on the French pieces selected for translation into English.*)

1. (*a*) Explain *en* in *en disent du bien*.
   (*b*) Give five simple tenses of *dire* in the first person singular.
   (*c*) Give the rule for the gender of *gens*, with examples.
   (*d*) Explain the subjunctive in *des gens qui aient l'air*.
   (*e*) Account for the conditional in *ceux qui ressembleraient*.
2. (*a*) With reference to *en attendant*, give the rules on the government of verb-forms by prepositions.
   (*b*) Give five simple tenses of *croire* in the second person singular.
   (*c*) What is the allusion in *la belette de la fable?*
   (*d*) Distinguish between *du moins* and *au moins*.
   (*e*) Quote a phrase meaning the opposite of *de près*.
3. (*a*) Give five simple tenses of *s'asseoir* in the third person singular.
   (*b*) Give five simple tenses of *vouloir* in the first person plural.
   (*c*) Give five simple tenses of *tenir* in the second person plural.
   (*d*) Distinguish the component parts in *voici*.
   (*e*) Distinguish between the different meanings of the substantive *reconnaissance*.

4. Give the French for—
   (*a*) He had said to himself. She had said to herself. He has hurt (*blesser*) himself. She has hurt herself.
   (*b*) He has told us all that he knows.
   (*c*) He spoke quite low, but she spoke very loud.
   (*d*) He is going to leave London to-morrow.
   (*e*) My friend is to arrive to-morrow.
5. Distinguish between—
   (*a*) *Ivresse* and *ivrognerie*, *travail* and *ouvrage*.
   (*b*) *Un brave homme* and *un homme brave*, *de méchants vers* and *des vers méchants*.
   (*c*) *Écrire de sa propre main* and *il a les mains propres*.
   (*d*) *Le poêle* and *la poêle*.
   (*e*) *Le manche* and *la manche*.
6. Give the present and past participles of—
   (*a*) *Sortir*, *mettre*.
   (*b*) *Pouvoir*, *écrire*.
   (*c*) *Finir*, *pourvoir*.
   (*d*) *Devoir*, *couvrir*.
   (*e*) *Décevoir*, *s'enfuir*.

Wednesday, 4th April 1894.—9 *to* 12 *o'clock.*

I.

Translate into English :—

Des pressentiments de mort se mêlaient aux vastes projets de Mirabeau, et quelquefois en arrêtaient l'essor. Cependant, sa conscience était satisfaite, l'estime publique s'unissait à la sienne et l'assurait que, s'il n'avait pas encore assez fait pour le salut de l'État, il avait, du moins, assez fait pour sa propre gloire. Pâle, et les yeux profondément creusés, il paraissait tout changé à la tribune, et souvent il était saisi de défaillances subites ; les excès de plaisir et de travail, les émotions de la tribune avaient usé, en peu de temps, cette existence si forte. La cour était alarmée, tous les partis étonnés ; et, avant sa mort, on s'en demandait la cause. Une dernière fois, il prit la parole à cinq reprises différentes, sortit épuisé et ne reparut plus. Le lit de mort le reçut et ne le rendit qu'au Panthéon. Il avait exigé de Cabanis qu'on n'appelât pas de médecins ; néanmoins, on lui désobéit, et ils trouvèrent la mort qui s'approchait, et qui, déjà, s'était emparée des pieds. La tête fut atteinte la dernière, comme si la nature avait voulu laisser briller son génie jusqu'au dernier instant. Un peuple immense se pressait autour de sa demeure, et encombrait toutes les issues dans le plus grand silence. La cour envoyait émissaires sur émissaires ; les bulletins de sa santé se transmettaient de bouche en bouche et allaient répandre partout la douleur à chaque progrès du mal. Lui, entouré de ses amis, exprimait quelques regrets sur ses travaux interrompus, quelque orgueil sur ses

travaux passés : "Soutiens," disait-il à son domestique, "soutiens cette tête, la plus forte de France." L'empressement du peuple le toucha ; la visite de Barnave, son ennemi, qui se présenta chez lui au nom des Jacobins, lui causa une douce émotion. Le curé de sa paroisse, venant lui offrir ses soins, il le remercia avec politesse et lui dit, en souriant, qu'il les accepterait volontiers s'il n'avait, dans sa maison, son supérieur ecclésiastique, M. l'évêque d'Autun.—THIERS.

II.—GRAMMAR.

1. Give comparative and superlative of *petit*, *peu*, *beaucoup*, *mauvais*, *mal*, *haut*.

2. Translate into French : they praise themselves ; they praise each other ; they speak of each other ; they speak to each other.

3. Distinguish (*a*) between *ce* (or *cet*), *celui*, *ceci* ; (*b*) between the three different uses of the French *leur*. Form six sentences (three for (*a*), three for (*b*) to illustrate the differences.

4. Form one short sentence for each of the following expressions, either as subject or as object : (*a*) *l'un l'autre* ; (*b*) *l'un et l'autre* ; (*c*) *l'un ou l'autre* ; (*d*) *ni l'un ni l'autre*.

5. Translate into English : (*a*) *de quoi s'agit-il*? (*b*) *n'importe!* (*c*) *que vous importe* (*-t-il*)? (*d*) *il s'est fait tuer* ; (*e*) *il s'est laissé tuer* ; (*f*) *il fait jour* ; (*g*) *il fait des éclairs*.

6. Translate into English : (*a*) *qui est-ce qui est arrivé*? (*b*) *qu'est-ce qui est arrivé*? (*c*) *qu'est-ce que vous dites*? (*d*) *qu'est-ce que cet homme-là*? Explain in each of these sentences the character and case of the pronoun *qui* and *que*.

III.

Translate into French :—

(*a*) (1) He has lost all the money he had ; (2) the town in which we live has only five thousand inhabitants ; (3) I wish you would not talk so loud ; (4) when I saw him last, he did not look at all well.

(*b*) "What should I do?" said he in a quiet way, after a moment's reflection. "Really I am not sure ; it seems to me that you should tell me what you wish me to do." "What!" cried his mother-in-law ; "you are a man, and you do not know how to answer such a question? I tell you of an unpardonable insult ; of a question of life and death, and you ask me what is to be done. You cannot mean it, or rather you cannot have understood me." "Perhaps not," said he, with the greatest coolness. "If you would speak a little more clearly, perhaps I should be able to understand you. We Bretons are capital fellows, as you were kind enough just now to remark ; but we are accused of having rather thick heads, and in this respect I am strictly true to my country."

GERMAN.

Wednesday, 4th October 1893.—2 *to* 5 *o'clock.*

(*Extra marks allowed for using German script.*)

I. Translate into German :—

When Lenore had thus learned whither the baron had gone, she walked slowly away in another direction, in order not to meet him—over the brook and through the fields towards the forest. She gazed upon the blue sky and the teeming (ſproſſende) earth. In the clear morning-light the green tips of the grass glittered so brightly that her heart rejoiced. On the willows by the brook there lay a thin, transparent mist like the breath of spring, the yellow twigs were bursting (ſtrotzen) with sap, and from the swollen buds the first leaves were breaking forth. Lenore tripped with light footstep over the broad belt of sand which surrounded the forest, and hastened along the footpath which led through the pine-trees to the forester's house. The whole forest was full of life and activity : now it was the eager twittering (Gezwitſcher) of a newly mated (vermahlen = to mate) pair of little wood-birds, who could not decide on which branch they should build their nest this year, and again it was the hum (Summen) of a wild bee newly awakened from its winter sleep. Brown butterflies fluttered (flattern) from twig to twig, and in the deeper hollows the white stars of the anemone gleamed (leuchten) in the shade. Lenore took off her straw hat and allowed the soft, warm air to blow round her temples (Schläfe = temples).

II. Translate the following sentences :—

(*a*) The concert takes place to-day.
(*b*) He does not pronounce correctly.
(*c*) Are you in want of nothing?
(*d*) Art thou hungry (impersonally)?
(*e*) The sheep are shorn in May.
(*f*) Do you keep on terms of friendship with them?
(*g*) What has become of him?
(*h*) He has broken his neck.
(*i*) What are you thinking of?
(*j*) We are happiest when we are most contented.

III. Translate into English :—

(*a*) Während der Alte, von Wein berauſcht, in den Roſengärten des phrygiſchen Königs Midas umhertaumelte, hatten ihn Landleute gefangen und, mit Blumenkränzen gefeſſelt, zu ihrem König geführt. Midas

erkannte sogleich den Freund und Genossen des Dionysos und bewirtete ihn festlich zehn Tage und zehn Nächte. Am Morgen des elften Tages führte er ihn seinem jugendlichen Zögling wieder zu. Der Gott freute sich, daß sein Liebling ihm wiedergeschenkt war, und gestattete dem König einen Wunsch. Midas sprach: „Schaffe, mächtiger Gott, daß Alles, was mein Leib berührt, sich in funkelndes Gold verwandele." Der Gott willfahrte seinem Wunsche, doch bedauerte er, daß er sich nichts Besseres erwählet. Des bösen Geschenkes froh, entfernte sich der phrygische König und versuchte sogleich, ob auch die Verheißung des Gottes sich erfülle. Er brach einen Zweig von einer Eiche, und siehe—kaum kann er es glauben—er hält einen goldenen Zweig in der Hand; er nahm einen Stein von dem Boden und eine Erdscholle, Stein und Scholle sind Gold; der Apfel, den er vom Baume brach, schien ein Apfel der Hesperiden. Sein Herz ist zu klein, um all' seine Hoffnungen zu fassen; alles erscheint ihm jetzt golden. Voll Freude läßt er sich ein reichliches Mahl auftragen. Der Tisch ist besetzt mit leckerem Fleisch, mit weißem Brod und duftendem Wein. Aber sowie er das Brot in die Hand nimmt, ist es starres Gold, er mischt sich Wein und Wasser, und flüssiges Gold fließt ihm durch die Kehle. Erschreckt von dem unverhofften Übel, so reich und doch so elend, wünscht er seinem Reichtum zu entfliehen und verflucht, was er eben sich gewünschet. Nichts stillt ihm den Hunger, heißer Durst brennt in seiner Kehle, das verhaßte Gold bringt dem Thoren verdiente Qual. Da erhebt er seine Hände zum Himmel und ruft: „Verzeih' mir Vater Dionysos, ich habe gesündigt, doch ich flehe, erbarme dich und nimm das glänzende Elend von mir." Der freundliche Gott gewährte dem reumütigen Thoren seine Bitte und hob das verliehene Geschenk wieder auf.

(*b*) An die Thüren will ich schleichen,
Still und sittsam will ich steh'n;
Fromme Hand wird Nahrung reichen,
Und ich werde weiter geh'n.

Jeder wird sich glücklich scheinen,
Wenn mein Bild vor ihm erscheint;
Eine Thräne wird er weinen,
Und ich weiß nicht was er weint,

(*c*) Wer nie sein Brot mit Thränen aß,
Wer nie die kummervollen Nächte,
Auf seinem Bette weinend saß,
Der kennt euch nicht, ihr himmlischen Mächte!

Ihr führt ins Leben uns hinein,
Ihr laßt den Armen schuldig werden,

Dann überlaßt ihr ihn der Pein,
Denn alle Schuld rächt sich auf Erden.

IV. Grammar:—

(*The following Questions are based on the pieces set for translation into English.*)

1. (*a*) Decline, in the Singular only, der phrygische König. (*b*) Account for the inversion of the subject in hatten ihn Landleute gefangen. (*c*) Give in the first person singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of erkennen. (*d*) Decline der Genesse throughout the Singular. (*e*) Decline, in the Singular only, sein jugendlicher Zögling.

2. (*a*) What would er führte ihn wieder zu become in a dependent clause? (*b*) Put in an impersonal form the phrase: Der Gott freute sich. (*c*) Distinguish between: er war wiedergeschenkt and er wurde wiedergeschenkt. (*d*) Give in the second person Singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of sprechen. (*e*) Decline, in the Singular only: mächtiger Gott.

3. (*a*) What is the mood of verwandele, and why? (*b*) Account for the Present tense of erfülle. (*c*) Give, in the third person Singular only, in the Indicative and in the Subjunctive, the Present and the Imperfect of sehen. (*d*) Give, in the Plural only, the Present Indicative of können. (*e*) Give, in the first person Plural only, in the Indicative and in the Subjunctive, the Present and the Imperfect of scheinen.

4. (*a*) Decline, in the Singular only, the noun das Herz. (*b*) When is the form all' permissible for alle? (*c*) Account for in die Hand nehmen as against in der Hand halten. (*d*) Give, in the second person Plural only, in the Indicative and in the Subjunctive, the Present and the Imperfect of bringen. (*e*) Give the intransitive form corresponding to erschreckt.

5. (*a*) Give, in the third person Plural only, in the Indicative and in the Subjunctive, the Present and the Imperfect of rufen. (*b*) Substitute another preposition for zu in zum Himmel, preserving the sense. (*c*) Distinguish between der Thor and der Narr. (*d*) Distinguish between wieder and wider. (*e*) Distinguish the components in reuemütig, and give their meaning.

6. (*a*) Give the first person Singular of the Imperfect Indicative, and the Past Participle of stehen. (*b*) Give the first person Singular of the Imperfect Indicative and the Past Participle of wissen. (*c*) Distinguish hinein from herein. (*d*) Distinguish ich überlasse from ich lasse über. (*e*) What is the ordinary phrase for the poetic auf Erden?

Wednesday, 4th April 1894.—2 *to* 5 *o'clock.*

I.

Translate into English :—

Friedrich der Große hatte einige Wand-Teppiche bestellt. Da die Ausführung des Auftrags auf sich warten ließ, so fragte er nach dem Grunde. „Eure Majestät," sagte der Geschäftsmann, „ich bin eben damit beschäftigt die Zimmer des Hauses zu tapezieren, das sich Euer Schatzmeister hat bauen lassen, und er drängt mich außerordentlich." Der König, den die Ausgaben dieses Beamten überraschten, beschloß die Sache näher zu untersuchen. Er erkundigte sich wann sein Schatzmeister in seinem neuen Hause zu treffen sein würde. Da dasselbe in nächster Nähe seines eigenen Schlosses war, so begab sich der König hin auf seinem Wege zur Parade und betrat das Haus, als der Eigentümer es am wenigsten erwartete. Er ließ sich alles zeigen, fand alles äußerst schön und lobte den Geschmack des Besitzers. Als sie zu dem Schlafzimmer gekommen, war der König von der reichen Ausstattung desselben so betroffen, daß er sich aufs lebhafteste erkundigte: „Wer schläft denn in diesem prachtvollen Zimmer?" Der Schatzmeister antwortete äußerst verlegen und mit leiser Stimme: „Ich, Eure Majestät." Der König, ohne ein Wort zu erwidern, verließ das Zimmer. An der Thüre traf er den Unternehmer und erfuhr von ihm, daß das Schlafzimmer allein sechzig tausend Thaler gekostet. Friedrich ließ den Schatzmeister kommen. „Woher kommt Ihnen all dieses Geld"? „Aus der Kasse Eurer Majestät," antwortete er, indem er sich zu seinen Füßen warf, „aber ich werde es zurückerstatten." Unfähig seine Geduld länger zu bezwingen, gab ihm der König mehrere Stockschläge und sagte ihm, indem er das Haus verließ: „Ich hätte Dir vergeben können, Schurke, ohne das prachtvolle Zimmer, in welchem Du die Unverschämtheit gehabt hast zu schlafen." Der Schatzmeister büßte seine Prachtliebe mit mehreren Jahren Gefängnißstrafe.

II.—Grammar.

1. Give the nominative plural of Haus, Schurke, Gefängniß, König, Wort.

2. What is the difference between daß and das; wenn and wann; wieder and wider; der Heide and die Heide; er hat sein ganzes Vermögen verspielt and er hat sein ganzes Vermögn verspielt.

3. State generally the rules concerning the position in the German sentence of (*a*) subject; (*b*) verb; (*c*) auxiliary verb.

4. Define the „Umlaut" (modification of vowel), and state generally where it occurs.

5. Distinguish between (*a*) strong; (*b*) weak; (*c*) mixed conjugation. To which class do the auxiliaries of mood, wollen, dürfen, &c., belong?

6. Distinguish between :—

(*a*) In meiner Tasche habe ich zwei Thaler, { die gebe ich Euch. / die ich Euch gebe.

(*b*) Die sind glücklich, { die sind zufrieden. / die zufrieden sind.

III.

Translate into German :—

(*a*) (1) This is my hat, that is yours.
(2) He offered (anbieten) him all he had.
(3) I have not seen nor heard of him for years.
(4) He arrived last night by the ten o'clock train.
(5) He said he could not come to-day, because he did not feel quite well.

(*b*) As we went out one day, Ann and myself, we met a girl about eight years of age. She looked pale, and was very poor. She told us that her name was Jane, and that she lived in the small hut near the forest. We asked her why she was so poor, and why her father did not work to get her food. Tears came into her eyes, and she said that her father had been ill for some time and was now dead, and that her mother was too weak to work. She had not eaten anything all the day, because there was no food in the house. Ann wept when she heard all this, and we took her home to our mother. Mother was very kind to poor Jane, and went with her and took care of her mother. We were very glad that we had met her, and we were glad to help her.

FIRST PROFESSIONAL EXAMINATION.

CHEMISTRY.

Monday, 17th July 1893.—10 *to* 12 *o'clock.*

1. What is understood by the term Oxidising Agent? Name three oxidising agents, and two examples of the oxidising action of each.

2. How would you prepare ammonium nitrate? What is the action of heat on ammonium nitrate? How can ammonia gas be obtained from ammonium nitrate? How can nitric acid be obtained from ammonium nitrate?

3. Name one ore of each of the following metals :—Iron, copper, tin, mercury.
How, in each case, is the metal obtained from the ore?

4. How can you distinguish between a nitrite and a nitrate?

5. What quantity of iron per cent. is contained in pure ferrous carbonate?

[C = 12, O = 16, Fe = 56.]

Monday, 26th March 1894.—10 *to* 12 *o'clock.*

N.B.—*Express your meaning in words, and also by means of equations whenever possible.*

1. What is the action of water on :—
   (*a*) Silicon Tetrafluoride?
   (*b*) Phosphoric Anhydride?
   (*c*) Phosgene Gas?
   (*d*) Phosphorus Pentachloride?

2. What chemical changes, if any, occur when a cold dilute solution of Potassium Hydrate is saturated by each of the following gases?—
(*a*) Carbonic Anhydride ; (*b*) Nitrogen Peroxide ; (*c*) Sulphurous Anhydride ; (*d*) Carbonic Oxide ; (*e*) Chlorine ; (*f*) Hydrogen Sulphide ; (*g*) Oxygen.

3. Ammonia solution is added, drop by drop, to aqueous solutions of each of the following salts until no further change occurs. Describe and explain what is observed. State whether any further change takes place when the mixture is shaken up with air :—
(*a*) Ferrous Chloride ; (*b*) Magnesium Chloride ; (*c*) Manganous Chloride ; (*d*) Mercuric Chloride ; (*e*) Zinc Chloride.

4. Describe the preparation of—
   (*a*) Calomel from Mercury.
   (*b*) Silicon Tetrachloride from Silica.
   (*c*) Ethylene from Alcohol.
   (*d*) Ether from Alcohol.

5. What volume in litres of Carbonic Oxide at 760 m.m. and 0° C. can be obtained from 10 grammes of Sodium Formate by the action of strong Sulphuric Acid?

H = 1, O = 16, C = 12, Na = 23.

Two grammes of Hydrogen at 760 m.m. 0°C. occupy 22·33 litres. Calculate the result to two places of decimals.

ELEMENTARY BOTANY.

Monday, 17th July 1893—1 *to* 3 *o'clock.*

1. Write a short account of the life-history of a Fern. Compare it with that of a Moss.

2. What are the chief functions performed by roots? Point out how structure is correlated with function in roots.

3. Mention the chief substances which form reserves of food in plants. In what forms do they occur? In what part of the plant are they found?

4. Illustrate by reference to the case of any one plant the phenomena of saprophytism. Point out the difference between this and parasitism.

5. What are the parts of a typical leaf? Give some account of the modifications for special purposes of the parts of the leaf that are frequently met with.

Monday, 26th March 1894.—1 *to* 3 *o'clock.*

(*Illustrate your answers by Drawings.*)

1. What is meant by "Rotation of Crops"? Give an account of the physiological reasons for the practice.
2. In what visible form does starch occur in plants? In what part of a plant is it found? How is it formed in these positions?
3. What is meant by Pleomorphy? Illustrate your answer by reference to the life of any Schizomycete.
4. Write a short account of the structure, position, and use of nectaries in the flower.
5. What is a fruit? Describe the forms met with in Rosaceæ, Liliaceæ, and Gramineæ.

ELEMENTARY ZOOLOGY.

Tuesday, 18th July 1893.—10 *to* 12 *o'clock.*

1. Describe and compare with one another, as regards structure and mode of origin (*a*) the shell of Anodon; (*b*) the exoskeleton of the Lobster; (*c*) the spines of the Skate, and (*d*) the carapace of a Tortoise.
2. Mention and give the distribution of five typical members of the order Primates; point out how the Simiidæ differ from the Terrestrial Carnivora, and give a short account of the Orang (Simia).
3. Describe the maturation, fertilization, and segmentation of a holoblastic ovum.

One of the following:—

4. What are the chief points of difference between the skull and pectoral girdle of the Frog and those of the Skate on the one hand, and of the Rabbit on the other?
5. Describe the alimentary canal of the Pigeon, and compare it with that of a Worm, and of a Lobster.

Tuesday, 27th March 1894.—10 *to* 12 *o'clock.*

(*Four, and only four, Questions to be answered.*)

1. What are the Visceral Arches? Describe their development, and their fate in the Skate, the Frog, and the Rabbit.
2. Give an account of the Auditory Organ in the Lobster, Anodon, the Skate and the Frog, and trace any homologies you can in these organs.

3. Compare a Crocodile and a Pigeon as regards
(*a*) their skeletal, and
(*b*) their circulatory systems,
and refer them to their positions in a classification of the Sauropsida.

4. Classify and give the geographical distribution of the following forms, Echidna, Cryptoprocta, Dasypus, Didelphys, Otaria, and Pteropus. Give reasons for the classification adopted.

5. Give an account of the principal changes that take place during the maturation, fertilization, and segmentation of an ovum.

PHYSICS.

Tuesday, 18th July 1893.—1 *to* 3 *o'clock.*

(*Not more than* FIVE *Questions to be answered.*)

1. Explain how (1) the momentum, (2) the kinetic energy of a body in motion is measured.

Find the average force under which a mass of 10 lbs. will acquire a speed of 100 feet per second in five seconds, and find through what space this force will act. State the unit of force in terms of which your answer is given.

2. Describe in detail any method for measuring the mean density of the earth, and point out the difficulties inherent in the method.

3. Explain what is meant by the terms stress and strain. Mention the principal forms of strain, and the corresponding forms of stress.

4. Give some illustrations of the law that the absorptive power of a body is proportional to its emissive power for any one definite species of radiation.

5. State the laws of reflection of light. Explain the formation of images by a concave mirror, pointing out the position of the object so that the image may be (1) real, (2) virtual.

6. Give reasons to justify the assumption that light is a disturbance propagated in an elastic medium.

7. Explain the formation of nodes and loops (1) in an open (2) in a closed organ pipe.

Why is it that the closed pipe can give only uneven harmonics of its fundamental note?

8. What is the law connecting electromotive force, current, and resistance in a conducting circuit? Explain the meaning of each quantity involved, and show how it may be measured.

9. Point out clearly the distinction between a vapour and a gas; illustrating your statement by rough data for water-substance.

10. What is the special importance of the notions of (*a*) a cycle of operation, and (*b*) a reversible cycle, in the treatment of the theory of a heat-engine?

Tuesday, 27th March 1894.—1 *to* 3 *o'clock.*

(*Five, only, of the following Questions to be answered.*)

1. Explain how *force*, *impulse*, and *work* are measured.

2. What is the average force (in lbs. weight) required to give in 0".001 a speed of 500 feet per second to a mass of $\frac{1}{16}$ of a lb.? Through what space must this force be exerted?

2. State Boyle's Law, and explain how it is modified in the case of a gas near its critical temperature. Illustrate your answer by drawing on a Watt's diagram the isothermals for carbonic acid gas at temperatures above and below the critical temperature.

3. Define the terms *Extensibility*, *Plasticity*, *Rigidity*, and *Compressibility*; and illustrate the distinctions between them by reference to simple experiments or to natural phenomena. In particular, show how Rigidity and Compressibility are to be measured, and indicate their importance in the discussion of the elastic properties of bodies.

4. Give a general account of the effects of heat
   (1) in changing the bulk of a body;
   (2) in changing the form of a body;
   (3) in changing the molecular condition of a body.

5. Describe five distinct methods by which an electric current may be made to flow in a wire, and show how, in any case, its presence may be detected.

6. Give the laws of the reflection and single refraction of light, and discuss the formation of images
   (*a*) in two plane mirrors inclined at an angle of 60° to one another;
   (*b*) by a doubly-convex lens.

7. What is the nature of sound, and how is it propagated? What are the special characteristics of a musical note, and upon what do they respectively depend?

8. Explain the ascent of water in a capillary glass tube, and point out why we should expect to find peculiarities in the surface film of every liquid.

SECOND PROFESSIONAL EXAMINATION.

ANATOMY.

Wednesday, 19th July 1893.—10 *to* 12 *o'clock.*

1. Describe the position and relations of the Cæcum and the Vermiform Appendix. State the arrangement of the peritoneum in relation to them.

2. Describe the origin, course, and distribution of the following

nerves :—(*a*) superior laryngeal; (*b*) recurrent laryngeal; (*c*) long buccal. Explain, by reference to development, the difference in origin of the right and left recurrent laryngeal nerves.

3. Point out the differences in construction between an amphi-arthrodial and a di-arthrodial joint. Describe the structural characters of hyaline articular cartilage and white fibro-cartilage.

4. Describe the formation, arrangement, and position of the Palmar arterial arches.

Friday, 30th March 1894.—10 *to* 12 *o'clock.*

1. Describe the position and arrangement of the Jejunum and Ileum. What are their relations to the peritoneum? What is their blood supply? What are the naked eye and microscopic characters of the *free surface* of their mucous membrane?

2. Enumerate the adductor muscles of the thigh. Give their respective insertions. State their relations to each other, and to the blood-vessels and nerves in their region.

3. Describe the construction of the shoulder-joint. What are its movements? Give the relations to it of the muscles which lie around it.

4. Describe the position, relations, connections, and structure of the Pons Varolii.

INSTITUTES OF MEDICINE, OR PHYSIOLOGY.

Wednesday, 19th July 1893.—1 *to* 3 *o'clock.*

1. *a.* Describe the microscopical appearances of the fibres of striped skeletal muscle in an uncontracted and in a contracted state.

b. Describe and make a diagram of the experimental arrangements required to show the mechanical effects of a direct application of a single maximum induction shock to a frog's gastrocnemius. Make diagrams to show the kind of tracing obtained by the application of ten such shocks and of thirty such shocks per second.

c. State in what manner the contraction of a frog's muscle is altered by fatigue.

2. Enumerate the functions of the several centres in the Medulla and Pons, and state the several influences that may determine or otherwise affect the activity of each of the chief centres.

3. What opinions are held regarding the origin of fat in the animal body? Discuss the evidence adduced in their support.

Friday, 30*th March* 1894.—1 *to* 3 *o'clock.*

1. (*a*) Describe the appearance of a vertical section of a Malpighian Pyramid as seen with a low power of the microscope.

(*b*) State what is known regarding the seat of formation and mode of origin of the chief urinary constituents.

2. (*a*) Explain the method by which the time taken by the blood to flow from the Jugular Vein to the Carotid Artery of a rabbit may be estimated.

(*b*) Explain the methods by which the Reaction-Time for touch, hearing, and sight may be measured in man.

3. Describe the course of the blood (*a*) as soon as the circulation has been established in the Vascular Area; and (*b*) its course after the Placenta has been developed. (*c*) Describe the development of the heart.

MATERIA MEDICA.

Thursday, 20*th July* 1893.—10 *to* 12 *o'clock.*

1. Explain how *Iodine*, *strong Sulphuric Acid*, and *Potash* each produces its local effects.

2. What are the physical characters and pharmacological actions of *Tartar Emetic*? State the doses given to produce each of its therapeutic effects.

3. Describe the action of *Ethyl Ether* on the nervous system and on the heart, when it is given (*a*) by inhalation, and (*b*) by stomach administration.

4. What are the physical and sensible characters of *Paraldehyde*? What is its chief action? Mention the characteristics of this action.

5. Describe the pharmacological action and therapeutic effects of *Picrotoxin*. In what doses and by what methods may it be administered?

Saturday, 31*st March* 1894.—10 *to* 12 *o'clock.*

1. What are the physical characters of *Arseniate of Sodium?* State two tests for its detection. What is its officinal preparation, and in what doses is it used?

2. What is *Lactic Acid* prepared from? What are its therapeutic uses by stomach administration? State the doses for each application.

3. Describe the more important of the physical and sensible properties of *Sulphonal*. What are its therapeutic uses and doses?

4. Describe the pharmacological actions and therapeutic uses of

Apomorphine. In what preparation, and in what doses is it used by subcutaneous injection?

5. What is *Pepsin*? Describe its actions and uses. In what doses, and in what forms is it administered?

GENERAL PATHOLOGY.

Thursday, 20th July 1893.—1 *to* 3 *o'clock.*

1. *Tumours of the Liver.*—Enumerate and classify the various tumours which may occur in the liver; and describe any two forms of primary tumour of that organ.

2. *Tuberculosis.*—What evidence, of an experimental or other nature, is there of the casual relationship of a bacillus to this disease?

3. *Leucocythæmia.*—Describe fully the changes found in the blood, and in the various organs, in this disease.

4. *Hæmorrhage.*—Describe the changes which may follow the extravasation of blood into any tissue, with reference (*a*) to the blood, and (*b*) to the affected tissue.

Saturday, 31st March 1894.—1 *to* 3 *o'clock.*

1. Diphtheria:—Describe the principal lesions, both primary and secondary, occurring in this disease. Give an account of the micro-organisms now regarded as its cause. Where are they found, and what is known of their mode of action?

2. Describe fully the tubercular diseases of the brain and its membranes.

3. Describe the characters of the various forms of non-syphilitic cirrhosis of the liver.

FINAL PROFESSIONAL EXAMINATION.

PRACTICE OF PHYSIC.

Monday, 12th June 1893.—10 *to* 12 *o'clock.*

(*Only Three Questions to be answered.*)

1. Given a case of enlargement of Lymphatic Glands, state what considerations would guide you in deciding as to the nature of the enlargement; also indicate the prognosis and treatment in four varieties

of such enlargement, giving a prescription for each (as you would send it to the druggist).

2. Given a case of gradual failure of the Heart, enumerate the secondary results upon various organs and upon the system generally. Describe in detail the Anatomical condition and the Clinical features of the process as it affects any two organs, and give the treatment which you would adopt for the condition generally, giving two prescriptions.

3. Describe the various causes of Hæmoptysis and the treatment in each variety.

4. Describe the symptoms and the treatment of a case of Acute Anterior Poliomyelitis.

MEDICAL JURISPRUDENCE.

Monday, 12th June 1893.—1 *to* 3 *o'clock.*

I.—*Fatal Stab in Thorax.*

1. It is alleged by the prosecutor that the wound was inflicted with force by the hand of an assailant; in defence, it is maintained that deceased was running forward to disarm the accused, who was holding a table-knife in his hand.

What observations might enable you to say which of these statements was the true one?

2. The knife had penetrated a ventricle of the heart: whether would death take place more rapidly from a wound of the right, or of the left ventricle?

State the reason why.

II.—*Life Insurance.*

A man proposes for insurance. His age is 40; his height 5 feet 8 inches; his weight 12 stones. He has not been under medical treatment since he had the diseases of boyhood. The father is alive at 65, and healthy. His mother at the age of 30, two sisters at about 18 or 19, and one brother at about 24, all died of phthisis.

What considerations might enable you to recommend acceptance of the insurance at ordinary rates, in spite of the phthisical family history?

III.—*Poisoning by Coal Gas.*

1. A person is found in bed, insensible, where coal gas has been escaping for some hours.

What other symptoms would be present besides the coma?

2. Under what circumstances might a person be poisoned by coal gas where the smell was not perceived?

3. How would you treat such a case?

PUBLIC HEALTH.

Monday, 12th June 1893.—1 *to* 3 *o'clock.*

I.—*Disinfection.*

Assuming that you are in a district where efficient means of disinfection of diverse sorts are at hand, state how you would proceed to act by way of disinfection (say in a case of cholera), with—

1. A Wool Mattress.
2. Blankets and Bed Linen.
3. Bowel Discharges.
4. A room recently vacated by a Small-pox patient.

II.—*Treatment of Sewage.*

Give a brief account of any one system for the "chemical treatment" of sewage, stating, with regard to the method selected, the details of the process, and the objects to be effected at its several stages.

III.—*Overcrowding.*

What are the bad effects of overcrowding?

(*a*) Upon the air of the apartment.

(*b*) Upon the persons breathing such air.

SURGERY.

Tuesday, 13th June 1893.—10 *to* 12 *o'clock.*

(*Only three Questions to be answered.*)

1. Describe in detail the operation for Ligature of the *Lingual* artery. In what circumstances would you perform the operation?

2. What *solid* tumours (neoplasms) are met with in the female mamma? Give the chief characters—(*a*) *Clinical*; (*b*) *Microscopic*—of each variety.

3. Define (*a*) *Flat-Foot*; (*b*) *Bunion*; (*c*) *Hammer-toe*; (*d*) *Hallux Rigidus*. Give the principles of treatment in each condition.

4. *Traumatic Rupture of the Male Urethra.*—(1) How does the accident happen? (2) Where is the Urethra torn? (3) Describe the course of the Extravasated Urine. (4) Give the treatment.

MIDWIFERY.

Tuesday, 13th June 1893.—1 *to* 3 *o'clock.*

(*All three Questions to be answered.*)

I.—*Face Presentations.*

1. Give the Causes.
2. What are the two most frequent Positions?
3. How are they recognised?

4. What is the Mechanism in the most common Position of the Face?
5. What treatment may be required?

II.—*Hæmorrhage.*

1. A patient at the seventh month of Pregnancy has a serious Flooding. How would you proceed to form a Diagnosis of the nature of the Case?
2. Give the Treatment of Partial Placenta Praevia.

III.—*Dermoid Tumours of the Ovary.*

1. What is their nature?
2. How is such a Tumour to be distinguished from—
   (*a*) An ordinary Ovarian Cystoma?
   (*b*) A Parovarian Tumour?
   (*c*) An Uterine Fibroid?
   (*d*) A Tubal Pregnancy?
   (*e*) A Pyosalpinx?
3. Give the Treatment.

CLINICAL MEDICINE.

Examinations written, oral, and practical, on cases in wards of the Royal Infirmary.

CLINICAL SURGERY.

Examinations, written and oral, on the Symptoms, Diagnosis, and treatment of Surgical Cases in the wards of the Royal Infirmary.

PRESCRIPTION WRITING.

Tuesday, 13th June 1893.—3.30 *o'clock.*

(*Each prescription to be written in Latin without any contractions, except the directions for the patient, which may be written in English.*)

1. Prescribe, for a case of anæmia with constipation, a mixture containing Sulphate of Iron and Sulphate of Magnesia.
2. Prescribe, for a case of Delirium Tremens, a draught containing Chloral Hydrate and Bromide of Potassium.
3. Prescribe, for a case of Dropsy, pills containing Elaterium and Hyoscyamus.

Fellowships, Scholarships, Bursaries, and Prizes in Medicine.

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I.—FELLOWSHIPS.

I.—THE SYME SURGICAL FELLOWSHIP.

This Fellowship, of the annual value of £105, 17s. 6d., and tenable for two years, is open to competition among Bachelors of Medicine and Masters in Surgery of not more than three years' standing, who shall, in the opinion of the Examiners, have passed a creditable examination for these degrees, and who shall present the best Thesis on a Surgical subject giving evidence of original research, or practical talent, whether such Thesis be given in for Graduation or otherwise. The next award may be at the Graduation Ceremonial in August 1895. *See* Deed of Foundation, at p. 310 of CALENDAR for 1872-73.

1891. Alexander Miles, M.D.	1893. *Wm. Menzies Hutton, M.B., C.M.* Prox. access. *R. M. Horne, M.B., C.M.*

II.—THE LECKIE-MACTIER FELLOWSHIP.

The Leckie-Mactier Fellowship, of the annual value of £70, is awarded to Bachelors of Medicine of not more than three years' standing, and is tenable for three years. The examinations comprise written reports and commentaries on medical, surgical, and gynecological cases in the University Wards in the Royal Infirmary, and written examinations in Midwifery, Medical Jurisprudence, and Public Health; also oral examinations in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health. Every holder of the Fellowship must, before the expiry of his tenure, transmit to, and if required read publicly in presence of the Medical Faculty, a communication embodying the result of original observation or historical research in some department of medicine. Next appointment may be made in November 1895. *See* Deed of Foundation at p. 365 of CALENDAR for 1880-81.

1892. *Carstairs Cumming Douglas, M.B., C.M., B.Sc.*

III.—THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship—candidates for which must have taken the Degree of Doctor of Medicine at the University of Edinburgh—is in the patronage of the Trustees of the British Museum, and is of the annual value of

£144. The office is tenable for five years, at the expiration of which period the Lecturer is ineligible for the next election. The number of lectures is not to be less than twelve in each year, nor more than three in the same week. The course is required to be annually delivered between the first of November and the end of July following, at such public places in the United Kingdom as the Trustees shall approve. The public are admitted without fee. The Lecturer is required at the termination of each course to deposit a copy, or full extract of such course of lectures, with the Principal Librarian of the British Museum, to whom application may be made for further particulars.

IV.—FREELAND BARBOUR FELLOWSHIP.

This Fellowship is of the value of £100, and is open to award, in each alternate year, to the Bachelor of Medicine and Master in Surgery who has gained the highest collective marks in Anatomy, Physiology, and Pathology in the Professional Examinations, and who is prepared to devote not less than one year to original research in Midwifery or diseases of women, in any of the Laboratories or Practical Departments of the University of Edinburgh. The next award will be made in July 1896. *See* Deed of Foundation at page 517 of CALENDAR for 1889-90.

1890. R. M. Home, M.B., C.M. (resigned).
,, Gerald Fitzgerald, M.B., C.M.
1892. George Home, M.B., C.M.

THE WILLIAM DICKSON TRAVELLING FUND.

This is a fund for the purpose of assisting Graduates of any Faculty, of not more than three years' standing, to travel for the purpose of study or research. For particulars, see page 313.

II.—SCHOLARSHIPS.

I.—ETTLES SCHOLARSHIP IN MEDICINE.

This Scholarship was founded in 1868 by Miss Mary Ettles of Inverness, and is of the annual value of about £25. It is awarded annually to the Bachelor of Medicine and Master in Surgery of the University of Edinburgh, whom the Faculty of Medicine may consider the most distinguished of that year. *See* Deed of Foundation, at page 242 of CALENDAR for 1868-69.

1890. Carstairs C. Douglas, M.B., C.M.
1891. Harry Rainy, (M.A.), M.B., C.M.
1892. Robt. Murray Leslie (M.A., B.Sc.), M.B., C.M.
1893. *Robert Hutchison, M.B., C.M.*

II.—SIBBALD MEDICAL SCHOLARSHIP.

This Scholarship is of the annual value of £40. *First*, The Scholarship is bestowed on, and held by, a Student in the Faculty of Medicine in the University of Edinburgh, *who does not hold any other Scholarship or Bursary*, and is tenable for three years, during each year the Scholar must complete an *Annus Medicus* required from Candidates for the degree of Bachelor of Medicine. *Second*, It is bestowed upon the Student obtaining the highest place by Competitive Examination, and is open to all Candidates who have not previously been Students of Medicine in any other School or University, and who have attended Medical Classes in the University of Edinburgh, for *not less* than one Winter and one Summer Session, and for *not more* than one Winter and two Summer Sessions. The Competitive Examination is in Chemistry, Botany, Natural History, and Physics, and is conducted in such manner as the Senatus Academicus may, in concurrence with the Trustees, prescribe. The next competition may take place in October 1894. Application to be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh.

1889. Robert Hutchison | 1891. *James R. Watson*

III.—THOMSON SCHOLARSHIP.

The Thomson Scholarship, value £40, tenable for four years, open to matriculated students commencing their first Winter Session in Medicine. The examination is on Botany, Zoology, and Elementary Mechanics. The Scholarship is awarded to the candidate who shall obtain the highest number of marks in the examination. The Trustees, however, reserve power to themselves to withhold the appointment should none of the candidates obtain a sufficiently high percentage of the marks in the examination. Candidates must send in their names to the agents for the Trust before the first day of October in the year in which there is a competition for the Scholarship. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. The next appointment may be made in October 1894. For other particulars, application to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh.

1890. *J. Stewart Norwell, B.Sc.*

IV.—COLDSTREAM MEMORIAL MEDICAL MISSIONARY SCHOLARSHIP.

The Coldstream Memorial Medical Missionary Scholarship was founded in memory of the deceased John Coldstream, M.D., F.R.C.P.E. Value £25, tenable for four years. The holder must be a first year's Medical Student, who intends to devote himself to the life of a Medical Missionary at home or abroad. He must be approved of by the

awarders, and pass the preliminary examination before beginning his studies. Next award in 1895. A preference is given to students connected with the Edinburgh Medical Missionary Society. A full copy of the conditions can be had on applying to John P. Coldstream, W.S., Edinburgh. *See* Conditions in CALENDAR for 1879-80, p. 357.

1891. *James Hunter White.*

V.-XII.—VANS DUNLOP SCHOLARSHIPS.

Eight Scholarships, of £100 each, tenable for three years. Not more than one at a time can be held by the same person. *See* Excerpt from Will of Dr Vans Dunlop, p. 380 of CALENDAR for 1880-81.

V. *One* is awarded to the Candidate who, at either the March or the preceding October Medical Preliminary Examination, has obtained the highest number of marks in the Subjects required to enable him to appear for a Professional Examination, provided (1) that he has not already passed the said Preliminary Examination; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. The next award may be made in March 1896.

1890. William Anderson Stephen.

W. D. Adams gained the first place in the Examination, but was disqualified by the then existing regulations.

1893. *A. C. M'Gilchrist.*

VI. One is awarded for subjects of first year's study, viz., Botany, Zoology, Chemistry, and Anatomy, to the Student who, having attended for the first time a systematic course of Lectures on each of the above Subjects during the preceding Winter Session, and also during either the preceding or current Summer Session, obtains the highest number of marks collectively in the University Class Examinations in those Subjects; provided that he has gained not less than 60 per cent. of the marks in each of all the Subjects. The successful Candidate shall continue his medical studies in this University during his tenure of the Scholarship. The next award may be at the end of July 1896.

1890. J. P. Stewart.

1893. *E. F. Bashford.* Prox. access. *W. Hamilton.*

VII. One is awarded for subjects of second year's study, viz., Physiology and Surgery, to the Student who, during the Winter Session, shall have attended, for the first time, a systematic course of Lectures on each of these Subjects, and who shall have obtained the highest collective number of marks in the Class Examinations; provided that he has gained not less than 60 per cent. of the marks in each of the two subjects. The successful Candidate shall continue his medical

studies in the University during at least two years of his tenure of the Scholarship, whilst the remaining year must be passed in study, either in this University, or in some other School of Medicine to be approved by the Faculty of Medicine. The next award may be at the end of March 1896.

1890. Louis Godfrey Irvine | 1893. *Daniel Brough*

VIII.-X. Three Scholarships, of which one is awarded annually at the end of the third Winter of Medical Study to the Student who, after having attended within the University the Subjects of Examination, shall obtain the highest number of marks in an Examination, specially conducted for the purpose, on Anatomy, Physiology, Materia Medica, and Pathology. The successful Candidate is required to continue his studies in this University, for at least the first year of his tenure of these Scholarships, and during the remaining period to prosecute research in some branch of study comprised in the Medical curriculum. The award is made annually in April.

1891. Robert Hutchison | 1893. Joseph Edward Bowes
1892. R. W. Briggs | 1894. *A. C. Sturrock*

XI. One in Chemistry and Chemical Pharmacy.

(1.) The Subjects of Examination are—

(*a*) Inorganic and Organic Chemistry, and the connection between the Chemical and Physical character of Substances.

(*b*) Qualitative and Simple Quantitative Analysis of Inorganic Substances, and the Preparation and Testing of the Chemical Substances in the British Pharmacopœia.

(2.) The Examination in subjects (*a*) is similar, and held at the same time, as that for the Second B.Sc. Examination. The Examination in subjects (*b*) is conducted practically in the Laboratory.

(3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance, and will take place in March 1897.

1891. William Cossar Mackenzie, D.Sc.
1894. *William White Taylor, M.A.*

XII. One in Natural History, including Geology and Botany.

(1.) The subjects Natural History, Geology, and Botany are coequal in the Examination, and the Examination in each of the three subjects is similar to that for the Second B.Sc. Examination, and consists of two parts—a Written Examination extending over not less than three hours, and a Practical Examination with specimens.

(2.) The next Examination will be held in April 1895, at the same time as the Second B.Sc. Examination.

(3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance.

1889. J. Graham Kerr
1892. *J. D. F. Gilchrist, B.Sc.*

XIII.—THE MURCHISON MEMORIAL SCHOLARSHIP.

This Scholarship consists of the annual proceeds of about £1000, awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates must be registered medical students who have attended for not less than four nor more than six years at Hospitals and Classes at Edinburgh or London, recognised by the University of Edinburgh or the Royal College of Physicians of London. The competition in 1895 will be held in Edinburgh.

1890. Bedford Pierce, M.B.
1891. No award.
1892. No award.
1893. *David Arthur Welsh, M.B., C.M.*

XIV.—STARK SCHOLARSHIP IN CLINICAL MEDICINE.

This Scholarship of £112, is tenable for one year, and is for the encouragement of the study of Clinical Medicine. It is open to competition among all matriculated students of the University who are or have been in attendance at the University Class of Clinical Medicine, and to Bachelors of Medicine of the University of not more than eighteen months' standing who have attended this class. It is open to competition every second year alternately with the competition in Edinburgh for the Murchison Memorial Scholarship. The Examination, oral and in writing, shall include (*a*) Examination of Patients; (*b*) Questions on Therapeutics and Pathology; (*c*) Examination of Specimens. Each holder of the Scholarship is required to devote his time in the wards of the Professors of Clinical Medicine to original investigation or other work directly connected with Clinical Medicine; to report his proceedings every three months to the Professors of Clinical Medicine; and, within a reasonable time after the expiry of his tenure of the Scholarship, to present to the Faculty of Medicine a written statement of the results of his investigations or other work. This Scholarship cannot be held along with any other Fellowship, Scholarship, or Bursary in a Scottish University. The next Competition will take place in July 1896. *See* Deed of Foundation at p. 427 of CALENDAR for 1884-85.

1890. R. D. Clarkson, B.Sc., M.B., C.M.
1892. *Robert Murray Leslie (M.A., B.Sc.), M.B., C.M.*

XV.—BUCHANAN SCHOLARSHIP.

This Scholarship, of the value of about £40, 10s., founded by Mrs Jane Jack or Buchanan, Moray Place, Edinburgh, is awarded annually to the Graduate in Medicine of the year who has shown the highest proficiency in Midwifery and Gynecology, as evidenced in (1) the Class Examinations of Midwifery and Diseases of Women and Children; (2) the Records kept by him of cases treated in the Gynecological Section of the University Class of Clinical Medicine in the Buchanan Ward of the Royal Infirmary, and (3) the Final Examination

in Medicine for the Degree of M.B. The Scholar is required to act as non-resident Clinical Clerk in the University Gynecological Ward, and to give assistance in the Examination of Class Exercises. *See* Deed of Foundation, p. 707 of CALENDAR for 1894-95.

1890. C. C. Douglas, M.B., C.M.
1891. W. M. Cairns, M.B., C.M.
1892. John L. Dick, M.B., C.M.
1893. *William Edward Fothergill, M.B., C.M.*

XVI.—THE JAMES SCOTT SCHOLARSHIP.

This Scholarship, founded by Mrs Mary Ann Scott or Thomson of Hawick, of the value of £45, is awarded annually at the Graduation Ceremonial in Medicine in August for proficiency in Midwifery. The award is based upon the results of the Competitive Examinations in the Class of Midwifery, upon the character of the records of Cases of Midwifery attended by the Candidate at the Royal Maternity and Simpson Memorial Hospital, and upon the position obtained by him at the Final Examination for Degrees in Medicine. The Scholarship is for one year, but may, in special circumstances, be continued for another year. *See* Deed of Foundation, p. 410, CALENDAR, 1883-84.

1889. James Lackie, M.B., C.M.
1890. Wm. Paterson, M.B., C.M.
1891. Robert Cran, M.B., C.M.
1892. Charles Cromhall Easterbrook (M.A.), M.B., C.M.
1893. *Alexander Maitland Easterbrook, M.B., C.M.*

XVII., XVIII.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships in Chemistry, each of the annual value of about £30. For particulars, *see* under Scholarships in Science.

XIX.—THE MOUAT SCHOLARSHIP IN THE PRACTICE OF PHYSICS.

This Scholarship, which will consist of the annual proceeds of about £1500 given by Frederick John Mouat, M.D., of the Local Government Board, London, formerly Professor of Medical Jurisprudence in the University of Calcutta, has been founded in connection with the class of Practice of Physic, but is not to be open for competition until the death of two liferenters.

XX.—MACKAY SMITH SCHOLARSHIP IN CHEMISTRY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Chemistry in this University. The successful Candidate is bound to attend the Class of Chemistry, or to prosecute the study of Chemistry in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus Academicus may direct or approve. The next Examination will take place in March 1896.

1890. R. W. Briggs
1892. J. W. Horne, M.A.
1894. *George Thomson.*

III.—BURSARIES.

No of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1864	Dr Abercrombie, Cape Town.	£20 0 0	1	4	£20 0 0	Governors of George Heriot's Trust.
II.	1871	Dr J. R. Sibbald's Trustees.	About (150 0 0)	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
III.	1873	Dr Mackie's Trustees.	60 0 0	2	2	30 0 0	Professors of Fac. of Med. in Univ., Edin.
IV.	1873	Mr Grierson of Ogscastle's Trustees.	80 0 0	4	3	20 0 0	Senatus.
V.	1878	Dr Andrew Thomson	200 0 0	8	4	25 0 0	Trus. of Dr Thomson.
VI.	1878	William Mackenzie	42 10 0	2	1	21 5 0	Senatus.
VII.	1878	John Aitken Carlyle	56 0 0	2	1	28 0 0	Senatus.
VIII.	1882	Mrs Ronald of Liverpool	80 0 0	2		About 40 0 0	Senatus.
IX.	16—	George Heriot. Remodelled 1887	480 0 0 About	6	4	30 0 0	Governors of George Heriot's Trust.
X.	1890	Major Robert Orr Crichton of Lynn, M.D.	1000 0 0	20	4	50 0 0	Senatus Academicus.
XI.	1809	Dr Donald Grant, London.	80 0 0 About	2	4	90 0 0 About	Dr Grant's Trustees.
XII.	1846	John Jamieson, Edinburgh.	26 0 0	1	4	26 0 0	Principal and Two Professors.
XIII.	1883	Wm. Renton, Edinburgh.	19 19 6	1	1	19 19 6	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
XIV.	1886	Richard Allan, Feuar, Kelso.	90 0 0	3	3	About 30 0 0	Trustees of R. Allan
XV.	1889	Daniel Maclaurin, London.	70 0 0	1	4	70 0 0	Town Council.

I. *Abercrombie Bursary*—Open by competition, in the event of more than one candidate coming forward, to Students who have been brought up in Heriot's Hospital, and have finished their course as Heriot Bursars, to aid them in further prosecution of their studies for any of the learned professions. Students in the Faculty of Medicine to be always preferred. Candidates are referred to the Treasurer of the Heriot Trust, 20 York Place, Edinburgh, before 15th September.

II. *Sibbald Bursaries.*—These Bursaries, each tenable for three years, are available to Students in the Faculty of Arts, Medicine, Law, or Divinity, entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship*, but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. The examination is the same as

the Preliminary and Bursary Examination in the Faculty of Arts at the commence ment of each Winter Session. Application to be made to Messrs Mackenzie Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

III. *Mackie Bursaries.*—These Bursaries are awarded to Students of Medicin of the University, one of which is open to Students who have completed thei First Annus Medicus, and the other to Students who have completed their Secon Annus Medicus, and who are, in the opinion of the Faculty of Medicine, in such pecuniary circumstances as to require assistance. *Bursars*—1892, *Lawrence Ker M.A., Charles W. Anderson.*

IV. *Grierson Bursaries.*—Candidates from the parishes of Crawford or Lead hills, about to commence their Medical Curriculum, who have passed in the University of Edinburgh a satisfactory examination in the preliminary subject required by Article I. of the Ordinances for Graduation in Medicine, who have been diligent students, and who require pecuniary aid to enable them to pursue their studies, have a preference. In the case of more candidates than one the Bursary will be awarded to the best qualified, on examination in the subjects above referred to.

Failing the appointment of preferential candidates, the Bursary will be tenable for periods of one year only, during four successive years, in manner following viz. :—The 1st year Bursary will be awarded to the student who has taken the highest place in the whole subjects required by Ordinance for the preliminary examination which has to be passed before the first professional examination, provided (1) that he has not already passed the said preliminary examination ; (2) that at the date of the examination he has not completed his twenty-first year ; and (3) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examinations of this University, which have to be passed before the First Professional Examination. The 2d year Bursary will be awarded by competitive examination to the student commencing the Second Winter Session, who having already passed the subjects of the Preliminary Examination required for Graduation in Medicine, shall pass the best examination in the subjects of Chemistry, Botany, and Natural History. The 3d year Bursary will be awarded by competitive examination to the student commencing the Third Winter Session who, having already passed the First Professional Examination, shall pass the best examination in the subjects of Anatomy and Physiology. The 4th year Bursary will be awarded by competitive examination in the subjects of Materia Medica and Pathology. *Bursars*—1893, *first year, Ward Smith,* Lapsed Bursary, *Hugh M'Calman ; second year, J. A. Murray ; third year, Arthur D Peill ; fourth year, Colin M'Vicar.*

V. One *Thomson Bursary* is awarded at each of the Preliminary Examinations held in Spring and Autumn, to the Candidate who, being about to commence his Curriculum, takes the highest place in a sufficient number of subjects to enable him to appear for Professional Examination : provided (1) that he has not already passed the said Preliminary Examination ; and (2) that, in the event of his having

passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examinations of this University which have to be passed before the First Professional Examination. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. Candidates claiming a preference must intimate their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, the agents for the Trust (from whom further particulars may be obtained), before 22nd September 1893 and 21st March 1894 for the Examinations in Autumn and Spring respectively. *Bursars*—1893-94, *John M. Bowie, James Masson, M.A.*

VI. *Mackenzie Bursaries*, open to Students in the Junior and Senior Anatomy Classes, who shall display the greatest industry and skill in Practical Anatomy, awarded at the end of each Session. *See* CALENDAR for 1879-80, p. 353. *Bursars*—1894, Senior, *G. B. Hollings*, *C. H. Johnston*—equal; Junior, *Miles Johnston.*

VII. *John Aitken Carlyle Bursaries*, one open to Students of the first year, awarded after examination in Anatomy and Chemistry, the other to Students of the second year, awarded after examination in Anatomy and Physiology. *See* CALENDAR for 1879-80, p. 350. *Bursars*—1894, Senior, *J. A. Murray;* Junior, *R. F. M'Nair Scott, B.A.*

VIII. The *Anderson Bursaries* have been founded by Mrs Ronald of Liverpool, and will come into operation on the death of an annuitant. For Deed of Foundation, *see* CALENDAR 1882-83, p. 396.

IX. The *Heriot Bursaries* are for Students unconnected with the Hospital, entering upon a regular Curriculum with a view to graduation. For remodelled scheme, see CALENDAR, 1887-88, p. 498. For subjects of Examination, &c., see under Bursaries open in Faculty of Arts.

X. *Crichton Bursaries.*—These Bursaries may be open in 1894 to Students entering the Faculty of Medicine of this University who have been born in Scotland. The subjects and dates of Examination will be announced. Each Bursary will be of the annual value of £50, tenable for four years, provided the Bursars continue Students of the Medical Faculty of this University. Unapplied balances may be applied for a period of three years in assisting Bachelors of Medicine of the University, who have studied in the University for not less than four years, in the prosecution of any branch of Medical Study. *See* Excerpt from Deed, p. 540 of CALENDAR for 1891-92.

XI. The *Grant Mortification* is for Students of the University of Edinburgh, of the name of Grant. The holders may attend the Arts, Medical, Divinity, or Law Classes. Application for information may be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh.

XII. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, and other persons born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of

Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar may attend Classes in any of the Faculties.

XIII. The *Renton Bursary*, founded by the late William Renton, 20 Royal Terrace, Edinburgh, is for a Student pursuing his studies in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of them as he may consider proper, and who may require assistance. The Bursary is tenable for one year, and cannot be held by any one under the age of sixteen or above twenty-one. It is filled up in November each year.

XIV. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Science, Medicine, or Law, in the University of Edinburgh, and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

XV. *Maclaurin Bursary.* This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's name of Maclaurin (or in Gaelic orthography "Maclalhrin"). It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

IV.—PRIZES.

I.—NEIL ARNOTT PRIZE FOR EXPERIMENTAL PHYSICS.

This Prize, of the value of about £35, presented to the University by Dr Neil Arnott of London, is awarded annually in October to the Candidate who shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the Degree of M.A. Candidates must have been Students of Medicine of this University during either a summer or a winter session; and the successful candidate must continue a Student of Medicine at this University during the next Winter Session, failing which, the prize will be forfeited and assigned to the competitor next in merit. No student can appear for examination after the completion of his third *annus medicus;* and no candidate shall be allowed to offer himself more than once.

In the event of a competitor, qualified as above, not coming forward, the prize will be awarded to a Candidate for a Degree in Arts who shall pass with most distinction the ordinary examination in Natural Philosophy. *See* Deed of Foundation at p. 274 of CALENDAR for 1870-71.

1889. Andrew Walker
1890. O. D. Robson
1891. D. Landsborough, M.A.
1892. William F. Harvey
1893. *John Malcolm*

II.—HOPE CHEMISTRY PRIZE.

(*Now Two Hope Prize Scholarships.*)

This prize was founded by the late Professor Thomas C. Hope in 1844, for the promotion of the Study and Science of Chemistry in the University, in such manner as the Principal and Professors might appoint. It was competed for biennially, at a special examination open to all Students of the University who have worked for eight months, or for two Summer Sessions, in the Chemical Laboratory of the University, and who are not more than twenty-five years of age. The examination was in Chemistry, and was conducted by the Professor of Chemistry, in conjunction with two Examiners appointed by the Senatus. The examination was practical as well as written. The successful Candidate was required to spend the succeeding academical year in working in a Laboratory or Laboratories, under conditions approved by the Senatus, and to receive £100 in such sums, and at such intervals, as might be appointed by them.

No person could hold the Hope Chemistry Prize more than once.

1889. { W. C. Mackenzie, B.Sc. / T. R. Marshall, D.Sc. } equal
1891. John Shields, D.Sc.
1893. *William White Taylor, M.A.*

III.—THE ROBERT WILSON MEMORIAL PRIZE.

This Prize was founded by John Wilson of South Bantaskine, in memory of his son, Robert Wilson, and is of the value of £8, 16s. 2d. It is annually awarded at the close of the Winter Session to the student in the senior Chemistry Class who takes the highest honours. *See* Deed of Foundation at p. 351 of CALENDAR for 1876-77.

1890. Edward Crarer
1891 { James H. Frazer / George Shaw } equal
1892. John W. Paterson
1893. William Hamilton
1894. *Andrew Hunter*

IV.—THE ELLIS PRIZE FOR PHYSIOLOGY.

This Prize consists of the proceeds of a sum of £500 bequeathed by the late Daniel Ellis, Esq., to the Principal and Faculty of Medicine of the University of Edinburgh, accumulated for three or five years. Value about £25 per annum. It is awarded for the best Essay or Treatise on some subject of Animal or Vegetable Physiology proposed by the Faculty for competition to Students or Graduates of not more than five years' standing. The next award may be made in 1895. Subject—"The Functions of Wood." Essays in Competition to be lodged with the Dean of the Faculty of Medicine on or before 30th April 1895.

1890. Gastav Mann

V.—PRIZES FOR THESES.

Gold Medals, each of the value of £10, are awarded annually on the day of graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

VI.—THE GOODSIR MEMORIAL PRIZE.

This Prize was founded in 1872 by the subscribers to the fund for a memorial of the late Professor John Goodsir. It is in the patronage of the Principal, Dean of the Faculty of Medicine, and Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh, and is for the encouragement of the study of Anatomy and Physiology. It is given triennially, and is of the value of £60. It is open to all Graduates in Medicine of the University of not more than three years' standing at the time of the competition, and to Licentiates of the Colleges of Physicians or Surgeons of Edinburgh of a like standing, who have attended within the University the same number of classes as are required for the Degree of M.B. The Prize is awarded for the best Essay containing results of original investigations in Anatomy, Human and Comparative, either Normal, or Pathological, or in Experimental Physiology.

The next award may be made in August 1895, and competing Dissertations must be lodged with the Professor of Anatomy not later than the 30th April previously. *See* Deed of Foundation at p. 314 of CALENDAR for 1872-73.

1889. H. F. Waterhouse, M.D.

1892 { *George Neil Stewart, D.Sc., M.D.* / *Arthur John Whiting, M.D.* } equal

VII.—THE WIGHTMAN PRIZE IN CLINICAL MEDICINE.

This Prize of £10, 10s. was founded by Mrs E. Wightman, in memory of her son, J. T. Wightman, M.B., C.M., and is annually awarded at the close of the Summer Session to the student attending the Class of Clinical Medicine for the best Dissertation on any subject presented by the Faculty of Medicine, or for the best Report and Commentary on cases which have during the previous Winter and Summer Sessions been treated in the University Clinical Wards in the Royal Infirmary. Three months' notice of subject is given by the Faculty of Medicine. *See* Deed of Foundation at p. 348 of CALENDAR for 1876-77.

The Prize, which is open to members of the Clinical Class of either Winter 1894-95 or Summer 1895, will be awarded for the best report and commentary on cases. The Essays to be given in on 6th July.

1889. Not awarded
1890. Not awarded
1891. Douglas C. Watson
1892. D. A. Welsh, M.A.
1893. *James Pearse, M.B., C.M.*

VIII.—THE BEANEY PRIZE.

This Prize of £37, 10s. was founded in 1878 by James George Beaney, Esq. of Melbourne. It is awarded at the Graduation Ceremonial in Medicine to the Graduate in Medicine and Surgery of the year who, having attended within the University courses on Anatomy, Surgery, and Clinical Surgery qualifying for Graduation, obtains the highest number of marks during his examinations in these subjects for the Degrees of Bachelor of Medicine and Master in Surgery. The Senatus has the power of withholding the Prize in the event of no Student passing the above examinations with sufficient merit. *See* Deed of Foundation at p. 371 of CALENDAR for 1878-9.

1889. Eustace Graham Pilgrim, M.B., C.M.
1890. G. Fitzgerald, M.B., C.M.
1891. Harry Rainy, M.A., M.B., C.M. } equal.
1891. G. Hennan, M.B., C.M. } equal.
1892. Alexander Brownlie, M.B., C.M.
1893. *Hugh Walker, M.B., C.M.*

IX.—THE CAMERON PRIZE.

This Prize was founded in 1878 by the late Dr Andrew Robertson Cameron, of Richmond, New South Wales. It consisted of the annual proceeds of a sum of £2000, to be given annually "to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding, and in determining such question, the word Therapeutics shall be taken in its widest sense as including every agent, or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering."

The regulations have been remodelled by the Educational Endowments (Scotland) Commission, and the annual proceeds, which, after defraying the necessary expenses, amount to about £80, may be awarded annually to a person who in the course of the five years immediately preceding has made any highly important and valuable addition to Practical Therapeutics. The Prizeman is required to deliver a lecture or course of lectures on the addition to Practical Therapeutics so made by him, or to publish an account of such addition in such manner as the Senatus may prescribe. The prize will not be awarded if, in the opinion of the Senatus, no addition to Practical Therapeutics has been made within the said period of five years of sufficient importance and value to justify the awarding of the prize. The prize is awarded annually at the Graduation Ceremonial in August. *See* Remodelled Regulations, p. 497 of CALENDAR for 1888-89.

1889. M. Pasteur.
1890. Sir Joseph Lister, Bart, M.B., LL.D., F.R.S.
1891. David Ferrier, M.D., F.R.S.
1892. No award.
1893. *Victor A. H. Horsley, M.B., F.R.S.*

X.—THE DOBBIE SMITH PRIZE IN BOTANY.

This prize, which consists of a Gold Medal, is open to competition each alternate year to all Matriculated Students of the year of the award, for an Essay on a Botanical subject. The subject of the next competition is an original investigation "On the Structure, Development, and Life History of any British Flowering Plant;" and the memoir is to be accompanied with a series of illustrative specimens. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before the 1st of July 1895. The prize will be awarded to the successful competitor at the Graduation Ceremony of August 1895.

1889. Gustav Mann | 1891. No award
1893. *Thomas Duncanson Sadler*

XI.-XXI.—THE GUNNING VICTORIA JUBILEE PRIZES.

Dr Gunning, of Edinburgh and Rio de Janeiro, has founded Eleven Post-Graduation Prizes of the value of £50 each, and each recurring triennially, viz.:—(1) The Monro prize for Anatomy; (2) The Bell prize for Physiology; (3) The Edward Forbes prize for Zoology, &c.; (4) The Hutton Balfour prize for Botany; (5) The Joseph Black prize for Chemistry; (6) The Christison prize for Materia Medica; (7) The Lister prize for Surgery; (8) The Gregory prize for Practice of Physic; (9) The John Thomson prize for Pathology; (10) The Simpson prize for Obstetrics; (11) The Alison prize for Medical Jurisprudence and Public Health. Candidates must be either Bachelors of Medicine or Bachelors of Science of this University of not more than three years' standing. The prizes will be awarded with the approval of the Senatus for (1st) either (*a*) Competitive Essays written specially for the prizes, or (*b*) Theses submitted for Graduation; or (2nd) for original research conducted under supervision of the Professor in the department in which the prize is awarded. The prizes in Zoology, Materia Medica, Obstetrics, Public Health and Medical Jurisprudence will be awarded in 1895; in Anatomy, Chemistry, and Practice of Physic in 1896; and in Physiology, Botany, Surgery, and Pathology in 1897. Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before 30th April of the year in which each prize is to be awarded, and the successful competitors will be announced annually at the Graduation Ceremonial in Medicine.

1890. John Shields, B.Sc., (Chemistry)
,, W. G. A. Robertson. M.D. (Anatomy)
,, *Prox. access.*, A. J. Whiting, M.B., C.M.
,, Practice of Physic Prize not awarded
1891. No award
1892. Gregg Wilson, M.A., B.Sc. (Zoology)
,, Alexander Houston, M.D. (Medical Jurisprudence and Public Health)
1893. *Robert Main Horne, M.B., C.M.* (Physic)
,, *Theodore Rettie, B.Sc.* (Chemistry)

XXII.—ANDERSON HENRY PRIZE.

The Prize was founded by Isaac Anderson Henry of Woodend, and consists of the proceeds of a sum of £300 accumulated for three years. It is awarded for the best and approved essay on a botanical subject proposed by the Professor of Botany, the Curator of the Royal Botanic Garden, and the President of the Botanical Society of Edinburgh, for competition to students in the Class of Botany in the University of Edinburgh, during any of the three years preceding the date of the award. The next award may be made in August 1894. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before 1st July 1895.

1890. Robert Turnbull, B.Sc.
1893. Not awarded.

XXIII.—MILNER FOTHERGILL MEDAL IN THERAPEUTICS.

This Medal, of the value of about £20, is awarded biennially. It is open for competition to Graduates in Medicine of the University, who have been members of the Class of Materia Medica in the University, for the best essay which shall include a description of original research made by the Candidate on a Pharmacological or Therapeutic subject, preference being given to a subject relating to Dietetics. *See* Deed of Foundation, p. 542 of CALENDAR for 1891-92. The first award may be made at the Graduation Ceremonial in August 1895. Essays to be lodged with the Professor of Materia Medica on or before 30th April 1895.

1893. *William George Aitchison Robertson, M.D., D.Sc.*

Of the foregoing Fellowships, Scholarships, Bursaries, and Prizes, the following are open to competition during the academic year 1894-95.[1]

FELLOWSHIP, SCHOLARSHIPS, BURSARIES, AND PRIZES OPEN TO COMPETITION IN THE FACULTY OF MEDICINE IN 1894-95.

For further information, and for information regarding other Scholarships, Fellowships, Bursaries, and Prizes, see Fellowships, &c., where full information regarding the conditions of tenure and the values are given.

FELLOWSHIP.

The Syme Surgical Fellowship (No. I., p. 674). The next award may be made at the Graduation Ceremonial in August 1895. Theses to be lodged *on or before* 30th April.

[1] *N.B.*—The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c.

SCHOLARSHIPS.

Two Vans Dunlop Scholarships.

1. *One in Natural History, Botany, and Geology* (No. XII., p. 678). The competition will take place in March 1895, viz.—Botany, 25th March, at 1; Zoology, 26th March, at 10; Geology at 1. Names of Candidates to be given in *on or before* 15th March.

2. *One in Anatomy, Physiology, Materia Medica and Pathology* (No. VIII., p. 678).

3. *The Murchison Memorial Scholarship* (No. XIII., p. 679). The competition in 1895 will take place in Edinburgh.

4. *The Buchanan Scholarship* (No. XV., p. 679).

5. *The James Scott Scholarship* (No. XVI., p. 680).

6. *The Ettles Scholarship in Medicine* (No. I., p. 675).

7. *Two Hope Prize Scholarships* (No. XVII., p. 680).

8. *The Thomson Scholarship* (No. III., p. 676). The next competition will take place in October 1894. For further particulars, apply to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, the Agents for the Trustees, before 21st September.

9. *The Sibbald Scholarship* (No. II., p. 676). The next competition will take place in October 1894. Application to be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 21st September.

BURSARIES.

1. *Two Sibbald Bursaries* (No. II., p. 681).

2-6. *Five Heriot Bursaries* (No. IX., pp. 681, 683).

7, 8. *Two Thomson Bursaries* (No. V., pp. 681, 682). Candidates claiming a preference must send their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, before 15th September.

9-12. *Four Grierson Bursaries* (No. IV., pp. 681, 682). *One* for the subjects of the Preliminary Examination. *One* in Chemistry, Botany, and Natural History. Next competition in October 1894, viz., Chemistry, 4th October, at 9, Botany, 11.30; 5th October, Zoology, 9. Names to be given in, and Certificates shown, on or before 21st September. *One* in Anatomy and Physiology. Next competition in October 1894, viz., Anatomy, 4th October, at 9, Physiology at 11.30. Names to be given in, and Certificates shown, on or before 21st September. *One* in Materia Medica and Pathology. Next competition in October 1894, viz., Materia Medica, 4th October, at 9, Pathology at 11.30. Names to be given in, and Certificates shown, on or before 21st September.

13, 14. *Two John Aitken Carlyle Bursaries* (No. VII., pp. 681, 683).

15, 16. *Two Mackenzie Bursaries* (No. VI., pp. 681, 683).

17. *Renton Bursary* (No. LXX., pp. 681, 684).

18, 19. *Two Mackie Bursaries* (No. III., pp. 681, 682). The next award may be made at the commencement of the Winter Session, 1894-5. Applications to be made to the Dean of the Faculty of Medicine on or before the 1st October 1894.

20-23. *Four Crichton Bursaries* (No. X., pp. 681, 683). The subjects and dates of Examination will be afterwards announced.

Competitors for the above Fellowship, Scholarships, and Bursaries, excepting those awarded for the subjects of Preliminary Examination, must have studied the subjects of Examination at the University of Edinburgh. No Fellowship, Scholarship, or Bursary, with the exception of the Ettles Scholarship, can be held along with any other Fellowship, Scholarship, or Bursary.

PRIZES.

The Medical Faculty Medals.—Gold Medals are given on the day of Graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

1. *The Neil Arnott Prize* (No. I., p. 684).

2. *The Beaney Prize* (No. VIII., p. 687).

3. *The Cameron Prize* (No. IX., p. 687).

4. *The Goodsir Memorial Prize* (No. VI., p. 686).

5, 6, 7, 8. *The Gunning Victoria Jubilee Prizes in Zoology, Materia Medica, Obstetrics, Medical Jurisprudence and Public Health* (No. XI., p. 688). Competitive Essays to be lodged with the Dean of the Faculty of Medicine on or before 30th April 1895.

9. *The Wightman Prize in Clinical Medicine* (No. VII., p. 686). The Essays to be given in before 6th July.

10. *The Dobbie Smith Gold Medal in Botany* (No. X., p. 688).

11. *The Lord Rector's Prize* (No. I., p. 316).

12. *Two Gray Prizes* (Nos. 7 and 8, p. 317).

13. *The Ellis Prize in Physiology* (No. IX., p. 685).

14. *The Milner Fothergill Gold Medal* (No. XXIII., p. 689).

15. *The Anderson Henry Prize* (No. XXII., p. 689).

16. *Edinburgh University Club of London Prize*, of twenty guineas, for the "best Essay embodying original observation in any subject in Medicine or Surgery, or the Sciences directly bearing upon them." Essays to be lodged with the Dean of the Faculty of Medicine on or before 30th June 1895, each bearing a motto, and accompanied by an envelope containing the name, address, and University standing of the Candidate.

WILLIAM DICKSON TRAVELLING FUND.

The William Dickson Travelling Fund. See page 313.

N.B.—*Scholars, Bursars, or Fellows must apply to the Dean of the Faculty of Medicine for Certificates to entitle them to draw the instalments due, and to the Factor for payment thereof, within three months after they have become payable, otherwise they will be regarded as having resigned. Any who desire to resign must at once announce this to the Dean and to the Factor.*

LECTURESHIP.

The Swiney Lectureship on Geology (No. III., page 674).

THOMAS R. FRASER, M.D.,
Dean of the Faculty of Medicine and Professor of Materia Medica.

VI.

FACULTY OF MUSIC.

1894-95.

Dean.

PROFESSOR NIECKS,

22 Dick Place.

Faculty of Music.

—o—

STUDENTS who do not intend to graduate in Music may attend any of the Classes in the Faculty on payment of the Five Shillings University Entrance Fee, and the Class Fees, without having Matriculated or having passed any Preliminary Examination.

Students who desire to graduate in Music must pass the Preliminary Examination, and must Matriculate before enrolling in any Class in the Faculty, otherwise their attendance on Classes will not qualify for graduation.

The Classes are open (both to men and women), and will meet as undernoted except during the Christmas Vacation, *i.e.*, from Monday, 24th December 1894, to Monday, 7th January 1895, both days included.

Courses of Lectures.

WINTER SESSION, 1894-95.

MUSIC.

PROFESSOR NIECKS.

The following Courses of Lectures, Theoretical and Practical Instruction, and Concerts, will be given in the Winter Session of 1894-95:—

1. HISTORY OF MUSIC OF THE LAST FOUR CENTURIES.

This Class will meet once a week (Thursdays, 3-4), beginning on 25th October. Twenty Lectures. Fee, One Guinea.

Lecture I.—Sketch of Music previous to the 16th Century.

Lectures II.-V.—Music in the 16th Century. (Palestrina and his time.)

Lectures VI.-IX.—Music in the 17th Century. (Monteverde and Carissimi, and Lully and A. Scarlatti, and their times.)

Lectures X.-XV.—Music in the 18th Century. (Bach and Handel ; and Gluck, Haydn, and Mozart ; and their times.)

Lectures XVI.-XX.—Music in the 19th Century. (Beethoven and Schubert ; Mendelssohn, Schumann, and Chopin ; and Berlioz, Liszt, and Wagner ; and their times.)

2. Musical Analysis.

This Class will meet once a week (Mondays, 3-4), beginning on 22nd October. Twenty Lectures. Fee, One Guinea.

The works to be analysed will be, among others :—(*a*) Some Songs by Schubert and Schumann ; (*b*) a Sonata and a Symphony by Beethoven ; (*c*) an Oratorio by Handel ; (*d*) an Opera by Mozart ; (*e*) an Opera by Wagner ; (*f*) *Faust*, by Berlioz ; (*g*) a Symphonic Poem by Liszt.

3. Harmony, Melody, and Rhythm.

This Class will meet twice a week (Tuesdays and Fridays, 3-4), beginning on 23rd October. Fee, Two Guineas.

4. Advanced Harmony ; Melody and Rhythm ; and Counterpoint.

This Class will meet twice a week (Tuesdays and Fridays, 4-5), beginning on 23rd October. Fee, Two Guineas.

5. Counterpoint and Composition.

This Class will meet once a week (Mondays, 4-5), beginning on 22nd October. Fee, Two Guineas.

6. Six Historical Concerts.

Three of these will probably be illustrative of the Development of the String Quartet, and one of Sacred Choral Music in the 16th, 17th, and 18th Centuries (Palestrina, Durante, and Bach).

Fee for these Concerts, Half-a-Guinea. Those attending any of the Music Classes will have the privilege of free admission.

ORDINANCE No. 34, EDINBURGH, No. 8.—REGULATIONS FOR DEGREES IN MUSIC. APPROVED BY HER MAJESTY IN COUNCIL ON 29TH JANUARY 1894.

At Edinburgh, the 27th day of July 1893 *years.*

WHEREAS by the Universities (Scotland) Act, 1889, the Commissioners under the said Act are empowered by section 14, sub-section 5, to regulate the management and ordering of the Universities, and the manner and conditions in and under which students shall be admitted thereto; and in particular (*b*) the course of study and manner of teaching; the length of the academical session or sessions; the manner of examination; the qualifications, appointment, and number of examiners, and the amount and manner of their remuneration; (*d*) the granting of degrees and the institution of new degrees; (*e*) the institution of an examination, either on entering the University, or as a preliminary condition of entering on the course of study for a degree in any Faculty, or of both such examinations.

Therefore the Commissioners under the said Act statute and ordain with reference to the University of Edinburgh as follows:—

I. Two degrees in Music may be conferred by the University of Edinburgh, viz., Bachelor of Music (Mus. Bac.), and Doctor of Music (Mus. Doc.).

II. 1. Every candidate for the degree of Bachelor of Music must pass a preliminary examination in the following subjects:—(1) English, including Geography and British History; (2) Elementary Mathematics or Elementary Physics or Logic; (3) any two of the following languages, viz., Latin, Greek, French, German, and Italian, provided that one at least of the two shall be a modern language.

2. The extent and standard of the preliminary examination shall be determined by the Senatus Academicus.

3. A degree in Arts not being a degree *honoris causâ tantum*, in any of the Universities of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court after consultation with the Senatus, shall exempt from the preliminary examination; and the Senatus shall have power to determine what examinations, other than those for the degree hereinbefore mentioned, shall be accepted either in whole or in part in place of the preliminary examination.

III. Candidates for the degree of Bachelor of Music must attend, in the University of Edinburgh during a whole Winter Session, a course

or courses of instruction extending in all to not less than eighty lectures, and including a course on the History of Music.

IV. There shall be a First Professional Examination in Music in the following subjects :—

(1) Singing or performing upon some Musical Instrument.
(2) Reading at Sight.
(3) Elements of Music, including Musical Modes, and Scales, Notation, Measure and *Tempo.*
(4) Harmony in not more than four parts.
(5) Elementary Counterpoint.
(6) Form: Sonata, Rondo, Fugue, and Minor Structures.
(7) Outlines of the History of Music.

The Ear Test shall be applied to every candidate.

V. There shall be, at least one year after the candidate has passed the First Professional Examination, a second Professional Examination in Music and in Literature in the following subjects :—

(1) One of the following languages not already taken in the preliminary examination—
French.
German.
Italian.
(2) Rhetoric and English Literature (including Prose Composition and a knowledge of Metrical Rules).
(3) Harmony in not more than five parts.
(4) Advanced Counterpoint.
(5) Canon in two parts, and Imitation and Fugue in not more than four parts.
(6) Form (Description of Structure and Character of Musical Forms, and Analysis of Musical Works).
(7) Elements of Instrumentation (Compass of the Orchestral Instruments, and of the Organ and Pianoforte).
(8) Critical Knowledge of certain prescribed Scores.
(9) Playing at Sight from easy Vocal and Instrumental Scores, and from Figured Bass.
(10) The History of Music.
(11) Acoustics in so far as connected with the Theory of Music, and Physiology of Vocal Organs.

In addition each candidate shall be required to submit the following exercises composed by himself :—

(*a*) A Solo Song with Pianoforte Accompaniment.
(*b*) A Four-part Vocal Composition.
(*c*) An Instrumental Composition (other than a Dance) for the Pianoforte or Organ, or for any Stringed or Wind Instrument with Pianoforte or Organ Accompaniment.

The extent and standard of the examination in these subjects shall be

fixed from time to time by the Senatus Academicus, and the examination shall be partly written and partly oral and practical.

VI. The examiners for both examinations shall be (1) the Professor of Music; (2) an Examiner in Music appointed by the University Court; (3) Examiners in the literary subjects numbered (1) and (2) of Section V. hereof, appointed by the University Court.

Degree of Doctor of Music.

VII. Bachelors of Music of the University of Edinburgh of not less than three years' standing, and not less than twenty-five years of age, may offer themselves for the degree of Doctor of Music, under the following regulations:—The degree shall be given in three Departments, and Candidates may present themselves in one or more Departments.

The Departments shall be those of—

(1) Composers.
(2) Executants.
(3) Theorists or Historians.

VIII. (1) Candidates for the degree of Doctor of Music as Composers shall submit a prescribed number of Vocal and Instrumental Compositions in the larger forms (such as Oratorio, Opera, Cantata, Symphony, Sonata, Overture). Each work shall be the original and unaided composition of the candidate, and shall be accompanied by a declaration to that effect signed by the candidate.

(2) Candidates shall also be examined in the following subjects:—

(*a*) The more recondite Contrapuntal Forms—Fugal Writing in more than four parts, &c.
(*b*) Instrumentation, including certain prescribed books on the subject.
(*c*) The works of the great Composers from Palestrina onwards.

IX. (1) Candidates for the degree of Doctor of Music as Executants shall be required to show their special skill in the execution of Solo and *ensemble* works in different styles. The works shall be selected partly by the candidates and partly by the examiners.

(2) The candidates shall be examined in sight-reading, and shall give evidence of their power of playing Orchestral Scores, and shall be required to invent Transitions and to modulate from one Key and Piece to another. They shall further be required to pass an examination on the History and Literature of their special instrument, and on the method of teaching that instrument.

X. (1) Candidates for the degree of Doctor of Music as Theorists or Historians shall present one or more treatises on Theoretical or Historical subjects, which shall be the result of research and original thought, not mere abstracts or compilations of existing works. They shall be accompanied by a declaration signed by the candidate that they are his own unaided work.

(2) Candidates shall also be required to pass an examination (*a*) in the Theory and (*b*) in the History of Music.

The examination shall be on a higher standard in the subject which the candidate selects as his specialty.

XI. The examiners for the degree of Doctor of Music shall be the same as for the degree of Bachelor of Music.

XII. It shall be competent to the University Court of the University of Edinburgh, after consultation with the Senatus, to modify from time to time the provisions as to curriculum hereinbefore contained, in case such modification shall be rendered desirable.

XIII. (1) The degree of Doctor of Music (Mus. Doc.) may be conferred *honoris causâ tantum*.

(2) The honorary degree of Doctor of Music shall not be conferred by the Senatus Academicus on any person unless he has been recommended for the said degree by the Faculty of Music in a reasoned representation, which shall have been submitted in writing to the Senatus Academicus by the said Faculty, and shall have been considered and approved by the Senatus at a special meeting at which not less than two-thirds of the members were present.

XIV. This Ordinance shall come into force at the beginning of the First Academical year after the date on which it is approved by Her Majesty in Council.

In witness whereof these presents are sealed with the seal of the Commission.

A. S. KINNEAR,
Chairman.

Class Prize Lists.

1893-94.

HISTORY OF MUSIC.

First-Class Certificates of Merit.—1. Christina Struthers, Edinburgh (*Medallist*); 2. Helen Lyon Smith, Dumfries; 3. Agnes Johnston, Edinburgh; 4. Robert Hutton Malcolm, Edinburgh; 5. William G. Cochrane, Leith; 6. Minnie Millar, Edinburgh.

Second-Class Certificates of Merit.—7. Elizabeth Irvine, Edinburgh; 8. Sarah W. Limont, Alnwick; 9. Agnes G. Stewart, Edinburgh; 10. Margaret F. Kennedy, Edinburgh; 11, Alice Helen Stewart, Edinburgh.

THEORY OF MUSIC.

First-Class Certificates of Merit.—1. Robert Hutton Malcolm, Edinburgh, and Christina Struthers, Edinburgh—equal (*Medal-*

lists); 3. William G. Cochrane, Leith; 4. Minnie Millar, Edinburgh; 5. Agnes Johnston, Edinburgh; 6. Helen Lyon Smith, Dumfries; 7. Elizabeth Irvine, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—8. E. E. G. Dallas, Edinburgh; 9. Michael Gavin, Grangemouth; 10. Mary Kennedy, Edinburgh; 11. Arthur Poyser, Edinburgh; 12. Jane Waterston, Edinburgh.

HARMONY, MELODY, AND RHYTHM.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Helen Lyon Smith, Dumfries (*Medallist*); 2. J. A. Y. Stronach, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—3. E. E. G. Dallas, Edinburgh; 4. Sarah W. Limont, Alnwick.

ADVANCED HARMONY, MELODY, AND RHYTHM; AND COUNTERPOINT.

FIRST-CLASS CERTIFICATES OF MERIT.—1. William G. Cochrane, Leith (*Medallist*); 2. Christina Struthers, Edinburgh; 3. Minnie Millar, Edinburgh; 4. Robert Hutton Malcolm, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—5. Agnes Johnston, Edinburgh; 6. Arthur Poyser, Edinburgh.

FREDERICK NIECKS, *Professor.*

DATES OF ENTERING FOR PRELIMINARY EXAMINATON FOR DEGREES IN MUSIC FOR THE ACADEMIC YEAR (1ST OCTOBER TO 1ST OCTOBER), AND FOR PAYMENT OF FEES.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

The Examination is the same in Italian, English, Lower Latin, Lower Greek, Lower Mathematics, French, and German, as the Preliminary Examination in the corresponding subjects for Degrees in Arts and Science; and in Logic and Physics (Natural Philosophy), as for the Preliminary Examination for Degrees in Medicine under the Old Regulations. The subjects are denoted on pages 132 and 133 by the figure 5, and on page 134 by the figure 1, in the Time-Table of Examinations.

Candidates who intend to present themselves for Examina-

tion may obtain schedules at the Matriculation Office, University (Old) Buildings, which must be completed and lodged and the fees paid at that office, not later than 21st September 1894 and 20th March 1895 for the autumn and spring Examinations respectively.

Candidates who cannot attend personally to pay the fees should transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered and Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to be entered for the Examination until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

Regulations for the Professional Examination of Candidates for Degrees in Music will be issued shortly.

FREDERICK NIECKS,
Dean of the Faculty of Music.

BUCHER SCHOLARSHIP.

By the will of Signor Theophile Bucher, his trustees were enjoined to pay over the residue of his estate, amounting to about £4000, to the University, for the purpose of founding one or more Scholarships in Music to be held by any young men born in Scotland, who may shew a natural talent for music and wish to make it their profession, for the purpose of improving their education, and enabling them to prosecute the study of the science and art of Music in Italy, Germany, and France.

The Subjects of Examination for the Scholarship includes Harmony, Rhythm, and Counterpoint, and the competition is open to young men between the ages of sixteen and twenty-five inclusively. The value shall not, after deducting the expenses of management and of examination, exceed £120 in any one year, the interest in excess of that sum to be added to the capital to form a second Scholarship. It is tenable for three years, and may be extended to a period not exceeding two years, during which time the scholars must prosecute the study of the science and art of Music in Italy, Germany, and France, as the Senatus, on the recommendation of the Faculty of Music, may determine. The Scholarship may be open in 1895-96. See Scheme of Administration, page 709 of CALENDAR for 1894-95.

Deeds of New Foundations, etc.

MAULE'S BURSARIES.

WE, Doctor JOHN MOIR, residing in Edinburgh, and Doctor DAVID NEWMAN, residing at Number Eighteen Woodside Place, Glasgow, the accepting and surviving Trustees, original and assumed, acting under *First*, a Trust Disposition and Deed of Settlement granted by the deceased Reverend Thomas Maule, residing at Maule Terrace, Partick of Glasgow, in favour of Mrs Janet Smith or Maule, his wife, Doctor Edward Newman, residing in Partick (both now deceased), me, the said Doctor John Moir, and the Reverend John Morrison Whitelaw, Minister of the Parish of Athelstaneford, and Doctor Robert Christison, Professor of Materia Medica in the University of Edinburgh (both of whom declined to accept office), dated the Fourth day of August, Eighteen hundred and fifty-three, and Codicil thereto, dated the Thirty-first day of March, Eighteen hundred and fifty-eight, both recorded in the Books of Council and Session the Twenty-third day of January, Eighteen hundred and sixty-five. *Second*, Deed of Assumption granted by the said Mrs Janet Smith or Maule, Doctor Edward Newman and me, the said Doctor John Moir, the then accepting Trustees acting under the said Trust Disposition and Deed of Settlement and Codicil in favour of David Smith, Junior, then residing at Number Ten Franklin Terrace, Dumbarton Road, Glasgow, and afterwards at Number Five Maule Terrace, Partick (now deceased), dated the Seventeenth and Eighteenth, and recorded in the Books of Council and Session the Twenty-third all days of February, Eighteen hundred and sixty-five; and *Third*, Deed of Assumption granted by the said Mrs Janet Smith or Maule, me, the said Doctor John Moir, and the said David Smith, Junior, as then accepting and surviving Trustees original and assumed, acting under the said Trust Disposition and Deed of Settlement and Codicil and Deed of Assumption in favour of me, the said Doctor David Newman, dated the Seventeenth and Twenty-fourth both days of May, and recorded in the Books of Council and Session the Sixth day of June all in the year Eighteen hundred and eighty-two, considering that the said deceased Thomas Maule, by the fifth purpose of his said Trust Disposition and Deed of Settlement, directed and appointed his Trustees, after the death of his said wife or after his own

death if he should have survived her, and in the event of there being no issue of the marriage between them, to lay out and invest, upon such Security as they might deem proper, and that in name of the Principal of, and Professors of Humanity and Greek in, the University of Edinburgh for the time being, and their successors in office, the major number being a quorum, so much of the Residue of his Estate as should be necessary to provide the sum of Eighty Pounds sterling per annum, and that for the purpose of establishing Four Bursaries in the College of Edinburgh, for the maintenance and education of the like number of poor and deserving Students in that College, and who should be appointed in the manner specified in the said Trust Disposition and Deed of Settlement and hereinafter expressed; and whereas the said Thomas Maule died on or about the Twenty-third day of December Eighteen hundred and sixty-four, survived by the said Mrs Janet Smith or Maule, his wife, but without there being any issue of the said marriage between them, and the said Mrs Janet Smith or Maule died on or about the Seventeenth day of September Eighteen hundred and ninety: And now, seeing that we, as Trustees foresaid, have, as directed by the said Trust Disposition and Deed of Settlement, invested part of the Residue of the Trust Estate in the purchase of the following Stocks, yielding an annual income of Eighty Pounds sterling, viz.:—(*First*) Eleven Hundred and Ninety-five Pounds four per cent. Consolidated Lien Stock of the North British Railway Company, and (*Second*) Eight Hundred and Five Pounds four per cent. Debenture Stock of the Great North of Scotland Railway Company, in the names of Sir William Muir, Knight, Commander of the Most Exalted Order of the Star of India, present Principal of the University of Edinburgh, and Harry Chester Goodhart, M.A., present Professor of Humanity, and Samuel Henry Butcher, LL.D., present Professor of Greek, both in the said University of Edinburgh, and their respective successors in office as Trustees and Patrons of the said Bursaries, the major number of them being a quorum; Therefore we, as Trustees foresaid, do hereby, in terms of the said Trust Disposition and Deed of Settlement, direct and appoint the said Sir William Muir, Harry Chester Goodhart, and Samuel Henry Butcher, and their respective successors in the said offices of Principal, Professor of Humanity, and Professor of Greek, all in the said University of Edinburgh for the time being, to hold the said Stocks purchased and now transferred to their names as aforesaid, as Trustees and Patrons for the purposes after-mentioned (the major number of the said Trustees and Patrons being a quorum), viz.:—*First*, The said Bursaries shall, in all time, bear the name of "Maule's Bursaries." *Second*, The said Sir William Muir, Harry Chester Goodhart, and Samuel Henry Butcher, and their respective successors in the said offices of Principal, Professor of Humanity, and Professor of Greek, all in the said University of Edinburgh for the time being, shall be the constant Patron or Patrons of the said Bursaries. *Third*, The said Bursaries shall be four in number,

and shall each be of the annual value of Twenty Pounds sterling: the persons to be appointed thereto shall be four poor and deserving Students in that University, and the said Bursaries shall be applied in maintaining and educating them at the said University. *Fourth*, The said Bursaries shall be tenable for six years if the persons appointed thereto shall continue so long to prosecute their studies at the said University, and, if not, then for the whole space during which they shall continue to do so. *Fifth*, The said Patrons shall, as soon as convenient after the date of execution hereof, and thereafter from time to time as vacancies occur, nominate and appoint holders of the said Bursaries, and that after a trial of the respective merits of such of the above-mentioned class of Students in said College as may choose to compete therefor; which examination shall be conducted by the Professors of Humanity and Greek for the time being in said University, and shall take place within the University at such time as may be fixed, but only after proper and timeous advertisement thereof shall have been made. *Sixth*, There shall be paid to the Professors of Humanity and Greek for the time being in said University, each the sum of One Pound One Shilling the first year of the appointment to each Bursary, as a small consideration for their trouble in conducting the said examinations, which sum of Two Pounds Two Shillings shall be deducted from the amount of the first year's Bursary, but from that year only. *Seventh*, Subject to the deduction mentioned in Article Sixth, the holder of each Bursary shall be paid one fourth part of the free revenue derived from the said Stocks. *Eighth*, The said Trustees shall have power to sell the said Stocks, or either of them, and to lay out and invest the proceeds in such investments as may be allowed by law for Trust Funds in Scotland. And we, as Trustees foresaid, consent to registration hereof for preservation.—In witness whereof, &c.—Dated 6th October 1893, and recorded in the Books of Council and Session, 17th February 1894.

SCOTT SCHOLARSHIP IN FACULTY OF ARTS.

The Scott Scholarship is awarded annually for one year, a previous holder not to be ineligible for re-election. It is given for the purpose of assisting Graduates of the Faculty of Arts, of not more than three years' standing at the date of their election as Scholars, to travel for purposes of Study or Research.

Applicants are required to state—

1. The purpose for which they desire to use the Scholarship.

2. What other means they have towards the object they have in view.

The award of the Scholarship will be based—(1) On the importance of the work to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the applicant for the work he proposes to undertake.

The holders of the Scholarship are required in all cases to satisfy the Senatus, by half yearly reports that they are carrying out the work undertaken; and must present a final report or deliver a short Course of Lectures on their work when completed.

The appointment to the Scholarship will be made by the Senatus on a report by the Faculty of Arts on the merits of the applicants, including a recommendation for appointment.

The first competition for the Scholarship will be open to all Graduates of the Faculty of Arts qualified as above, but thereafter preference will be given to Candidates desiring to undertake work in the following groups of subjects, under the following scheme of rotation, provided always that a suitable Candidate presents himself.

(1) Classical Languages and Classical Archæology.
(2) Mental Philosophy.
(3) Mathematical and Physical Science.
(4) Semitic and Indian Languages.
(5) English and Modern Languages.
(6) History.

REGULATIONS FOR GEORGE HERIOT'S FELLOWSHIP OF £100, TENABLE FOR NOT LESS THAN ONE YEAR, FOUNDED UNDER CLAUSE 79 OF THE SCHEME.

(1) The Fellowship shall be open to any Bachelor of Pure Science of the University of Edinburgh of not more than five years' standing from his Bachelor's Degree, or to any Master of Arts with Honours, of the University of Edinburgh, of not more than five years' standing from his Master's Degree, provided always that the Candidate shall have attended during his curriculum for not less than two years at the University of Edinburgh.

(2) The date of Election on each vacancy shall be determined by the Senatus, and shall be duly advertised, and Candidates shall be invited to send in applications to the Secretary of the Senatus, stating in what manner they propose to fulfil the conditions of tenure laid down in Rule (4) hereafter.

(3) The Fellowship shall be awarded alternately in the following Groups or Departments of Study:—

(1) Mathematical, Physical, Experimental, and Natural Science.
(2) Language and Literature.
(3) Philosophy and History, in the order named.

The award shall be made by Competitive Examination among the Candidates of the Group. This Competitive Examination shall be conducted by means of Theses composed by the competing Candidates on subjects connected with their special study or branch of research, as announced by them in terms of Rules 2 and 4 hereof, and the said subjects shall be submitted beforehand to the Senatus, and shall be subject

to their approval, and the Theses shall be submitted after such interval as the Senatus shall determine.

The examination of the Theses shall be entrusted to Examiners appointed by the University Court after consultation with the Senatus.

The said Examiners shall make a joint report to the Senatus, and the Senatus shall award the Scholarship on the said report, provided always that if they are of opinion that no sufficiently qualified Candidate has appeared in the Group, award may be withheld, and the Scholarship offered, after due notice of the vacancy in terms of Rule (2), in the next Group of Subjects in the order as above defined.

(4) During the tenure of his Fellowship the Fellow shall prosecute Research or Higher Special Study in some department of Literature, Philosophy and History, or Pure Science, to be specified by him in his application for the Fellowship.

(5) Payment of the Stipend of the Fellowship shall be made half-yearly in advance. Before receiving any payment after the first the Fellow shall submit to the Dean of the Faculty in which he is a Graduate a written report on the progress of the work in which he is engaged, with a programme of his future work. If this report and programme appear to the Dean, or, if he is in doubt, to the Senatus, to be sufficient, he shall countersign the same and forward them to the Treasurer of the Heriot Trust as warrant for the payment of the Fellow's stipend.

(6) It shall be in the power of the Heriot Governors, if they see fit, in special cases, on receipt of a report from the Senatus recommending such action, to continue the tenure of a Heriot Fellow for such period as they may determine.

(7) It shall be in the power of the Heriot Governors at any time to make such inquiries through the Senatus into the conduct and work of a Heriot Fellow as they may desire, and to suspend or discontinue his Fellowship should they see fit, and also to take like action on any report originating with the Senatus itself.

BUCHANAN SCHOLARSHIP.

We, Sir Alexander Grant, Baronet, Principal of the University of Edinburgh, Alexander Russell Simpson, Doctor of Medicine, Professor of Midwifery and Medicine in the said University, and Thomas Richard Fraser, Doctor of Medicine, Professor of Materia Medica, and Dean of the Faculty of Medicine in the said University, considering that Mrs Jane Jack or Buchanan, residing at number Forty-nine Moray Place, Edinburgh, Widow of James Buchanan, Esquire, sometime of number Forty-nine Moray Place aforesaid, having resolved to found a Scholarship in Gynecology in the said University, to be called "The Buchanan Scholarship," purchased One thousand and twelve pounds ten shillings Consolidated Preference Stock, Number Two, of the North British Railway Company, which, in

accordance with an arrangement to that effect with the Senatus Academicus of the said University, has been invested in our names, in trust, for the purposes aftermentioned, and seeing that with the view of carrying into effect the object of the said Mrs Jane Jack or Buchanan, it is proper that we should grant these presents, in manner underwritten: Therefore we do hereby declare that the said Stock or proceeds thereof, if sold under the powers herein contained, shall be held by us, and our successors in office, in trust, for the ends, uses, and purposes following, viz.:—*First* for payment of any expenses incurred by us in carrying out the purposes of the trust; *Second*, the interest or annual proceeds of the said sum of One thousand and twelve pounds ten shillings shall be annually awarded, on the day of the medical graduation in the said University, to the graduate who has shown the greatest proficiency in Midwifery and Gynecology, as ascertained by (first) the percentage of marks gained at the competition in the University class or classes of Midwifery and the Diseases of Women and Children; (second) the character of the Records kept by the candidate of cases treated in the Gynecological section of the University class of Clinical Medicine, in the Buchanan Ward of the Edinburgh Royal Infirmary; and (third) by the value of answers given to questions in the final examination of graduates for Medicine in the said University, and the said Scholarship shall be tenable for one year only, from the date when it is awarded; But declaring, as it is hereby expressly provided and declared, that, as it was originally intended by the said Mrs Jane Jack or Buchanan that the said Scholarship should be devoted to the payment of the board in the said Royal Infirmary of a resident Physician for the Buchanan Ward, and as this intention cannot at present be carried into effect, the Senatus Academicus of the said University shall have power to modify the foregoing conditions and regulations, in the event of the original intention of the said Mrs Jane Jack or Buchanan being at any time complied with, But with power to the Professor of Midwifery for the time being to make it tenable for two years, when, in his opinion, a specially able Scholar holds it; With power to us and our successors in office, with the approval of the Senatus Academicus of the said University, to sell the said Stock and invest the proceeds in the purchase of any of the Government Stocks, Public Funds, or Securities of the United Kingdom, or Guaranteed or Preference Stock or Debentures or Debenture Stock of approved Railway or other Companies, or to lend the same on the security of heritable or real property in Great Britain, or in such other security as they may deem expedient, and to alter, vary, and change the foregoing conditions on which the said Scholarship is to be held, should circumstances from time to time render this expedient, and also to change the said investments, without incurring any personal responsibility for the sufficiency of the said investments; And we consent to registration hereof for preservation.—In witness whereof, &c.—Dated 27th February, and recorded in the Books of Council and Session, 5th March 1883.

BUCHER SCHOLARSHIPS.

SCHEME FOR THE ADMINISTRATION OF THE BEQUEST BY THE LATE SIGNOR THEOPHILE BUCHER, to found a Scholarship or Scholarships in Music in the University of Edinburgh, adopted by the University Court, after revision by the Trustees for behoof of the Bequest, on 26th October 1892.

1. There shall, unless the Capital Fund be increased as after-mentioned, be one Scholarship, the Scholar during his tenure thereof being entitled to receive the free annual interest or proceeds of the Bequest after deducting the expenses of management, as these shall be certified by the Factor for the University, as well as all expenses attending the Examination of the Candidates, provided always that the Scholar shall not receive, in any one year, more than £120. Any interest in excess of that amount shall be added to the Capital Fund. And in the event of the Capital of the Bequest being increased by accumulations of interest or otherwise to such an extent as to be capable of yielding a second Scholarship of not less than £100, such second Scholarship shall thereupon be instituted.

2. The Scholarships shall be known by the name of the Bucher Scholarships.

3. The Scholarship or Scholarships shall be awarded after examination, to be conducted by the Professor of Music in the University, and by an additional Examiner, to be nominated by the University Court.

4. The Examination shall be open to young men between the ages of sixteen and twenty-five inclusive, born in Scotland, and who either are or have been enrolled as Students in the Faculty of Music in the University, and who desire to make Music their profession.

5. The subjects of Examination,—which shall include Harmony, Rhythm, and Counterpoint,—and the time and mode of conducting the same, shall be fixed by the Senatus on the recommendation of the Faculty of Music, and shall be publicly intimated at least three months before the Examination is held.

6. In judging of the comparative merits of the Candidates, the Examiners shall have special regard to their natural talent for Music, as tested either by execution (vocal or instrumental) or by composition: and if, on the occasion of any Examination, no Candidate shall be found, in the estimation of the Examiners, to hold out the prospect of adequately profiting by the opportunities of foreign study afforded by the Scholarship, they shall so report to the Senatus, who shall have power in that year to make no award, and the interest of the Bequest shall, in that case, be added to the Capital Fund until the next occasion, when an Examination shall be held and an award made. The interest shall be similarly dealt with in the case of a vacancy arising from death, resignation, or any other cause.

7. The Scholarship or Scholarships shall be tenable for three years, and it shall be an essential condition of holding the same that the

Scholar shall prosecute the study of the Science and Art of Music at such places in Italy, Germany, and France as the Senatus, on the recommendation of the Faculty of Music, shall determine, provided always that the Senatus may, on the recommendation of the Faculty of Music, report that there is strong reason for extending the tenure of a Scholarship to any particular holder for a period not exceeding two years, and thereupon the University Court may so extend it.

8. In case the Senatus shall, at any time, become satisfied that any holder of a Scholarship is not profiting by the opportunities for study afforded by the Scholarship, or has misconducted himself in such a way as to unfit him for retaining the Scholarship, they shall report their opinion to the University Court, with the evidence on which it is founded, and the Court shall, in that case, have power to deprive him of the Scholarship, after considering any statement, oral or documentary, which he may submit for their consideration.

9. The University Court shall have power, from time to time, to add to or amend the present Scheme.

HOPE PRIZE SCHOLARSHIPS.

THE following new Regulations for the Hope Prize, recommended by the Faculty of Science, have been approved by the Senatus and the University Court :—

1. That two Hope Prize Scholarships, each of the value of about £30 per annum, tenable for one year, be awarded each year at the end of the Winter Session.

2. That each Scholarship be awarded to the student whom the Professor of Chemistry thinks most deserving of those who have worked during that Session in the Chemical Laboratory of the University.

3. That the scholars shall work during the Summer and Winter Sessions succeeding their appointment in the Chemical Laboratory of the University, and shall assist the Professor of Chemistry in such manner as he thinks fit in each case, and that the scholars shall not pay fees for the Laboratory.

4. That two-thirds of the Scholarship be payable at the term of Candlemas, and one-third at the term of Lammas, in the year following the award.

5. That in case of resignation of a scholar, or of a scholar failing to fulfil the conditions, the Professor of Chemistry may, if he thinks proper, recommend a student working in the Chemical Laboratory for the remainder of the Scholarship so become vacant, the new scholar so appointed to perform the duties and receive the payments during the remainder of the time for which his predecessor was appointed.

6. That scholars may be appointed for a second time in cases of great distinction.

7. That the balance of the Hope Prize Fund be allowed in the meantime to accumulate.

If the new Scheme is found to work well, a third Scholarship might before long be provided from the accumulations.

Benefactors of the University.

THE Revenues of the University were formerly scanty and very inadequate for the encouragement of the higher education and learning in the Scottish metropolis. Scholarships and Fellowships were unknown prior to those recently instituted, and the emoluments of several of the Chairs are still greatly inferior to those in many other Universities.

During the early period of its history, the University received a considerable number of small donations and bequests, chiefly for Bursaries. Notices of these will be found in the preceding pages, in the Histories of the University by Bower, Dalzel, and Grant, and in the Report of the Universities' Commissioners in 1830. A list of early Benefactors to the Library is given at p. 49.

By Act 1 & 2 Vict., cap. 55, the various sums of money mortified in the hands of the Town Council for the support of the University, amounting to £13,119, were discharged, and an annual payment of £2500 (since reduced to £2170), secured upon the revenues of Leith Docks, is assigned to the University for the purposes of these bequests.

Within the present century, but especially since the year 1860, many donations and bequests have been made for Fellowships, Scholarships, and Bursaries, for the endowment of Chairs, and for the New Buildings, which will shortly be completed by the erection of the great "M'Ewan Hall." As the University, however, is still in many respects very inadequately endowed, much still requires to be done in order that it may not fall behind the requirements of the age. It is therefore hoped that the generosity of future donors will remedy this defect, and be directed towards the improvement of the Library, the augmentation of the General Fund, and various other academical purposes. Intending Benefactors are respectfully

reminded that additional Chairs, Lectureships, Supplementary Endowments for existing Chairs and Lectureships and Scholarships, and Funds for the encouragement of Research in many different departments are urgently required. The wishes of Donors and Testators are in every case scrupulously observed, and their names, if so desired, may be connected with any Benefaction they bestow. Such Benefactions may simply be conveyed to the "University of Edinburgh," and full powers of ordinary administration should be conferred upon the University authorities. All necessary information will be gladly afforded by the Secretary of Senatus, the Registrar of the University, or the Deans of the Faculties. The following list includes the chief Benefactors of the present century, together with the purposes of their benefactions[1] :—

(A.)—*Founders of Bursaries in the present Century.*

Rev. J. STEWART, South Carolina—Founder of the Stewart Bursaries.

Sir JOHN M'PHERSON, late Governor-General of India—Founder of the M'Pherson Bursary.

Rev. R. BLAIR, D.D.—Founder of the Blair Bursaries in Arts and Theology.

J. STEWART HEPBURN, Esq. of Colquhalzie—Founder of three Theological Bursaries.

JOHN JAMIESON, Esq., Edinburgh—Founder of the Jamieson Bursary.

GEORGE PARKER BIDDER, Esq.—Founder of the Jardine Bursary.

WILLIAM LENNIE, Esq., Teacher, Edinburgh—Founder of the Lennie Bursaries.

JOHN BRUCE, Esq., Trinity Crescent, Edinburgh—Founder of the Bruce Bursaries.

M'DIARMID TESTIMONIAL TRUSTEES—Founders of the M'Diarmid Bursary.

W. PATRICK, Esq. of Roughwood—Founder of the Patrick Bursaries.

JAMES GRAY, Esq. of Baadpark—Founder of the Gray Bursaries.

[1] An Association exists for the purpose of promoting—1st, The Foundation of Scholarships and Fellowships for the encouragement of the higher learning among the more advanced Students; 2d, The better Endowment of existing Chairs; 3d, The Foundation of new Professorships; and 4th, Other University objects.

The Chancellor of the University is President of this Association; the Hon. Secretary is Sir Alexander Christison, Bart.; and the Acting Secretary is Robert G. Scott, Esq., W.S., 61 Castle Street, Edinburgh.

Edinburgh Caithness Association—Founders of a Bursary.

Edinburgh Galloway Association—Founders of a Bursary.

Ayrshire Club—Founders of two Bursaries.

Peebles-shire Society—Founders of a Bursary.

Dr Abercrombie, Cape Town—Founder of a Bursary.

Mrs Margt. Tyndall Bruce of Falkland—Founder of Bursaries.

Trustees of Francis J. Scott, Esq. of Mount Lodge, Portobello—Founders of two Bursaries.

Miss Hannah Harrison of Lasswade—Founder of a Bursary.

Miss Mary Ettles of Inverness—Founder of three Bursaries, and the "Ettles Medical Scholarship."

Trustees of the Rev. John Spence, Minister of Kinnaird—Founders of two Bursaries.

John Robertson Sibbald, M.D.—Founder of Five Bursaries.

Argyllshire, Bute, and Western Isles Associations—Founders of a Bursary.

Subscribers to Memorial to Robert Stewart, Esq. of Ardvorlich—Founders of a Bursary.

The Edinburgh Border Counties Association—Founders of two Bursaries.

The Right Hon. Thomas, Earl of Zetland—Founder of the Orkney and Zetland Bursary.

Trustees of James Grierson, of Ogscastle—Founders of the Grierson Bursaries.

Trustees of Dr Mackie, Leith—Founders of Mackie Bursaries.

Trustees of J. Cairns, Esq., W.S.—Founders of the Cairns Bursary.

Trustees of Mrs Johnstone of Harthope, Moffat—Founders of the Johnstone of Harthope Bursary,

Trustees of James Lambert, Esq., Alloa—Founders of the Lambert Bursary.

Robert Marshall, Esq., Merchant, Edinburgh—Founder of the Marshall Bursary.

John Fothringham, Esq. of Heathpool—Founder of the Fothringham and Forrest Bursaries.

Right Hon. Lawrence, Earl of Zetland—Founder of the Zetland Bursaries.

Andrew Thomson, M.D.—Founder of Eight Bursaries in Arts, Divinity, Law, and Medicine.

Edinburgh East Lothian Association—Founders of a Bursary in Arts.

Edinburgh University Endowment Association—Founders of Six Bursaries in Arts.

Mrs Isabella Webster—Founder of the Webster Bursaries in Divinity.

Dr John Aitken Carlyle—Founder of two Bursaries in the Faculty of Medicine.

Mrs Elizabeth Mackenzie—Founder of the Mackenzie Bursaries.

Dr John Muir—Founder of a Classical Bursary.

Trustees of Mrs Barbara Macaulay or Mylne—Founders of a Bursary in Divinity.

Trustees of Rev. John Patterson—Founders of a Bursary in Anglo-Saxon Grammar and Literature.

Thomas Carlyle—Founder of the John Welsh Bursaries in Mathematics and Classics.

Mrs Helen Anderson or Ronald, Liverpool—Founder of the Anderson Bursaries.

Subscribers to Testimonial to W. Mackinnon, Esq. of Balinakill—Founders of the Mackinnon Bursaries.

Trustees of James Whitelaw—Founders of Whitelaw Bursaries.

Trustees of William Renton, Esq.—Founders of a Bursary in Divinity, and one in Arts.

Miss Isabella Macdougall, Perth—Founder of the John and Isabella Macdougall Bursaries.

Robert Hunter, Esq., Dalhousie Chesters—Founder of two Bursaries in Divinity.

Robert Pillans Newton of Castlandhill and Drumcross—Founder of the Newton Bursaries.

Peter Campbell Mann of Seaham Harbour, Durham—Founder of a Bursary.

Charles Jardine of Thorlieshope—Founder of Bursaries in Arts.

Isaac Anderson Henry—Founder of the Anderson Henry Prize.

Mrs H. E. Morison—Founder of the Mackenzie (Stornoway) Bursary.

Daniel Maclaurin, Esq.—Founder of the Maclaurin Bursary.

Thomas Lockerby, Esq.—Founder of the Lockerby Bursary.

George Cousin, Esq.—Founder of the "Bailie Cousin Bursary."

Thomas Hill Pattison, M.D.—Founder of a Bursary in the Faculty of Medicine.

Major Robert Orr Crichton of Lynn—Founder of the Crichton Bursaries in the Faculty of Medicine.

Rev. Thomas Maule—Founder of Maule's Bursaries.

Mrs A. B. R. Milner Fothergill of Hayton Quarry—Founder of the Milner Fothergill Gold Medal in Therapeutics.

Donald Fraser, M.D., London, and Association for the Better Endowment of the University—Founders of the Donald Fraser Bursary in Experimental Physics.

Subscribers to Memorial to Professor Kelland—Founders of Kelland Memorial Prize.

(B.)—*Founders of Scholarships or Fellowships in the present Century.*

The Pitt Club—Founders of two Scholarships, one in Arts and one in Divinity.

James Mackenzie, Esq., W.S.—Founder of Mackenzie Scholarship.

Alex. Henry Rhind, Esq. of Sibster—Founder of the Rhind Scholarships and Bursaries.

Sir David Baxter, Bart., of Kilmaron—Founder of the Baxter Scholarships in Arts and Sciences.

Sir William Fettes, Bart.—Founder of the Fettes Exhibitions.

John Maxton, Esq.—Founder of a Divinity Scholarship.

Miss Elizabeth Drummond—Founder of the Drummond Scholarship.

Mrs Margaret Tyndall Bruce—Founder of three Scholarships.

James Guthrie, Esq., of London—Founder of the Guthrie Fellowship.

Subscribers to Hamilton Memorial Fund, and Association for the Better Endowment of the University—Founders of a Philosophical Fellowship.

Association for the Better Endowment of the University—Founders of a Classical Fellowship.

Trustees of Dr J. H. Gilchrist—Founders of three Scholarships for Natives of India.

John Robertson Sibbald, M.D.—Founder of a Medical Scholarship.

Miss Mary Baxter, of Balgavies—Founder of a Scholarship.

Subscribers to Falconer Memorial Fund—Founders of a Fellowship.

Subscribers to Syme Fellowship—Founders of a Fellowship in the Medical Faculty.

Subscribers to Goodsir Memorial—Founders of a Prize and eventually a Fellowship in the Medical Faculty.

Trustees of Mrs Charles Maclaren—Founders of the Charles Maclaren Scholarship.

Subscribers to Glover Memorial Fund, and Association for the Better Endowment of the University—Founders of the "Glover Divinity Scholarship."

Mrs M. ARNOTT, Widow of NEIL ARNOTT, M.D.—Founder of the "Neil Arnott Scholarship for Experimental Physics."

JOHN EDWARD BAXTER, Esq. of Craigtay, bequeathed the residue of his estate, out of which three Scholarships named after him have been founded by the University Endowment Association.

The Rev. DAVID AITKEN, D.D., formerly Minister of Minto—Founder of the Aitken Scholarship.

DAVID SKIRVING, Esq., of 13 Westbourne Park, London—Founder of the Skirving Scholarship for Moral Philosophy.

ANDREW THOMSON, M.D.—Founder of a Scholarship.

Misses KIDD of Woodhouse—Founders of the David Kidd Divinity Scholarship.

Dr R. H. GUNNING of Rio Janeiro—Founder of two Scholarships and a Fellowship in the Faculty of Divinity, and of eleven Prizes in the Faculty of Medicine.

Dr T. LECKIE—Founder of the Leckie-Mactier Scholarship.

SUBSCRIBERS TO MEMORIAL OF Dr COLDSTREAM—Founders of the Coldstream Memorial Medical Missionary Scholarship.

Mrs JAMES BUCHANAN—Founder of a Scholarship in Midwifery and Gynecology.

Dr ANDREW VANS DUNLOP, H.E.I.C.—Founder of the Vans Dunlop Scholarships in Arts, Law, and Medicine.

Misses STEVEN of Bellahouston—Founders of a Scholarship in Agriculture.

SUBSCRIBERS TO MEMORIAL OF Dr CHARLES MURCHISON—Founders of the "Charles Murchison Scholarship."

Mrs MARY ANN SCOTT OF THOMSON of Hawick—Founder of the James Scott Scholarship in Midwifery.

ROBERT MACKAY-SMITH, Esq., Edinburgh—Founder of the Mackay-Smith Scholarships in Natural Philosophy and Chemistry.

Dr FREDERICK JOHN MOUAT—Founder of the Mouat Scholarship in Practice of Physic.

Dr JOHN STARK, Auchtermuchty—Founder of the Stark Scholarship in Clinical Medicine.

Mrs KIDD—Founder of "James Fairbairn's Scholarship."

Miss JANE JEFFREY—Founder of the Jeffrey Scholarships.

Dr A. H. FREELAND BARBOUR—Founder of the Freeland Barbour Fellowship.

Miss MATILDA JOHNSTON COBB—Founder of the Cobb Divinity Scholarship.

Mrs ELIZABETH MACKIE OF TREVELYAN—Founder of Scholarship in Engineering and Mechanical and Useful Arts.

Mrs MUIRHEAD—Founder of Prize in Civil Law Class.

SUBSCRIBERS TO LORIMER MEMORIAL FUND AND ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY—Founders of the Lorimer Travelling Scholarship.

GEORGE SCOTT, Esq., Peckham, London — Founder of the Scott Travelling Scholarship, for purposes of Study or Research.

(C.)—*Founders of New Chairs, Contributors of Endowments to existing Chairs, or of Money, &c., to the University Funds, Library, &c., within the present Century.*

General JOHN REID—Founder of the Theory of Music Chair, who also bequeathed money to the Funds of the University.

General Sir JOSEPH STRATON—Bequest to the University Funds.

Sir JAMES ERSKINE, of Torry, bequeathed Pictures, Bronzes, and Marbles to the University. [Lent to the National Gallery.]

Sir WILLIAM PULTENEY—Founder of the Chair of Agriculture.

Dr WILLIAM THOMSON—Founder of the Thomsonian Lectureship in Mineralogy.

Dr THOMAS CHARLES HOPE, late Professor of Chemistry—Founder of the Hope Prize.

Sir GEORGE BALLINGALL, late Professor of Military Surgery—Presented his Library to the University.

Dr W. P. ALISON, late Professor of the Theory of Medicine—Presented his Medical Books to the University.

JOHN MUIR, D.C.L., LL.D., Edinburgh—Founder of Sanskrit Chair.

Mrs MARGARET TYNDALL BRUCE—Founder of Prize in Logic Class.

DANIEL ELLIS, Esq.—Founder of "The Ellis Prize" in the Faculty of Medicine.

JOHN EDWARD BAXTER, Esq., of Craigtay, bequeathed the reversion of his Estate for the purpose of founding Scholarships, etc.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Chair of Engineering.

DAVID COWAN, Esq., of Auchendrane, bequeathed £1000 to the Association for Promoting the Endowment of the University.

Dr NEIL ARNOTT gave £1000 for Promoting the Study of Experimental Physics among the Medical Students of the University.

Sir RODERICK IMPEY MURCHISON gave £6000 for the Endowment of the Chair of Geology.

J. O. HALLIWELL PHILLIPPS, Esq., presented his valuable Shakespearean Collection to the University.

ROBERT COX, Esq., W.S., bequeathed £5000 for general purposes and for completing the Dome of the University buildings.

Signor THEOPHILE BUCHER bequeathed his Music Library to the Chair of Music, and reversion of estate to found Scholarships in Music.

THE MERCHANT COMPANY OF EDINBURGH, and other Governors of George Watson's and Daniel Stewart's Hospitals—Founders of the Chair of Political Economy and Commercial Law.

Mr HENRY G. and Miss FRANCES WATSON—Donors of Fund for the "Watson-Gordon Professorship of Fine Art." The Deed of Foundation will be found in CALENDAR for 1873-74, p. 320.

Sir D. BAXTER, of Kilmaron, bequeathed £20,000 for the Extension of the University buildings, and £20,000 for the Further Endowment of the Chairs in the Faculty of Arts.

Miss BROWN, of Lanfine, presented a portion of the Minerals and Fossils which belonged to her father—to be called "The Waterhaugh Collection."

Rev. HEW SCOTT of Wester Anstruther—Founder of the Scott and Dunbar Prize in Greek.

JOHN WILSON, Esq. of South Bantaskine—Founder of the Robert Wilson Prize in Chemistry.

Mrs E. WIGHTMAN—Founder of the Wightman Prize in Clinical Medicine.

THE BELL TRUSTEES, who gave £6000 for the Endowment of the Bell Chair of the Theory, History, and Practice of Education. (Endowment increased in 1886 by £4500, added by Educational Endowments Commission.)

JOHN B. BAILLIE, who transferred the collection of Arabic MSS., formed by Lieut.-Col. Baillie of Leys, to the University Library.

JAMES GEORGE BEANEY, Esq.—Founder of the Beaney Prize.

ANDREW ROBERTSON CAMERON, M.D., of Richmond, New South Wales—Founder of the Cameron Prize.

Dr DAVID LAING, bequeathed his MSS. to the University Library.

Mrs HODGSON, presented Works on Political Economy, collected by her late husband, Prof. Hodgson, to the University Library.

Dr VANS DUNLOP bequeathed £3000 to the General Fund of the University.

SUBSCRIBERS to the CELTIC CHAIR, by whom a fund of £14,000 was raised for the endowment of this Chair by the exertions of Professor Blackie.

Miss MARY DICK bequeathed a moiety of the residue of her estate to accumulate for twenty-one years from 1883, or till it shall amount to £10,000, for the Foundation of a Chair of Comparative or Surgical Anatomy, as considered most to be required.

SUBSCRIBERS of £500 and upwards to the "UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME":—[1]

The late Sir David Baxter of Kilmaron, Bart., by bequest, less Legacy Duty,	£18,000	0	0
William M'Ewan, Esq., M.P.,	6,500	0	0
The late Duke of Buccleuch and Queensberry, K.G., D.C.L., LL.D.,	4,000	0	0
The Magistrates and Council of the City of Edinburgh,	3,100	0	0
The Right Hon. the Earl of Moray,	2,525	0	0
The Right Hon. The Earl of Rosebery, LL.D.,	2,400	0	0
The Royal College of Physicians of Edinburgh,	1,575	0	0
The Right Hon. the Earl of Stair, K.T.,	1,500	0	0
Messrs John Jeffrey & Co.,	1,500	0	0
The late J. Fulton, Esq., Clinton Road,	1,150	0	0
Charles Andrew Aitchison, Esq., Queen Street,	1,050	0	0
The Most Hon. the Marquis of Bute,	1,000	0	0
Andrew Carnegie, Esq., New York and Pittsburg,	1,000	0	0
The Right Hon. the Earl of Derby,	1,000	0	0
J. R. Findlay, Esq., Rothesay Terrace,	1,000	0	0
The Right Hon. The Earl of Home,	1,000	0	0
The Right Hon. The Earl of Hopetoun,	1,000	0	0
The late Sir William Stirling-Maxwell of Pollok and Keir, Bart., LL.D., M.P.,	1,000	0	0
The Rt. Hon. The Earl of Wemyss and March, LL.D.,	1,000	0	0
The Right Hon. the Lord Justice-General, D.C.L., LL.D., Chancellor of the University,	800	0	0
Messrs Thomas Nelson & Sons,	800	0	0
The late Henry George Watson, Esq., C.A.,	800	0	0
The Most Hon. the Marquis of Lothian,	750	0	0
The Society of Writers to the Signet,	750	0	0
J. Lindsay Bennet, Esq., Taviton Street, London,	710	0	0
James Cowan, Esq., Royal Terrace,	700	0	0
Robert Richardson, Esq., Bruntsfield Place,	700	0	0
C. Morrison, Esq. of Islay,	700	0	0
C. Jenner, Esq.,	650	0	0
The late David Anderson, Esq., of Moredun,	600	0	0
James H. Renton, Esq., Park Lane, London,	600	0	0
Professor Sir W. Turner, LL.D.,	600	0	0

[1] See Statement of Funds in Calendar, 1889-90, Appendix, p. 22.

The Most Hon. The Marquis of Hartington,	£500	0	0
Charles Cowan, Esq., of Logan House,	500	0	0
T. R. Buchanan, Esq., M.P.,	500	0	0
P. D. Swan, Esq., Provost of Kirkcaldy,	500	0	0
Lady Campbell of Garscube,	500	0	0
The late William Cumming, Esq., M.D., Ainslie Place,	500	0	0
The late James T. Gibson-Craig, Esq., York Place,	500	0	0
Professor Crum Brown,	500	0	0
The Goldsmiths' Company of London,	500	0	0
W. Mackinnon, Esq., of Balinakill and Loup,	500	0	0
The late Graham Menzies, Esq. of Hallyburton,	500	0	0
John Graham Menzies, Esq., Grosvenor Crescent,	500	0	0
W. D. Menzies, Esq., Grosvenor Crescent,	500	0	0
The late Miss Trail, Aberlady, by bequest,	500	0	0
Messrs William Younger & Co., Abbey Brewery,	500	0	0
The Right Hon. The Earl of Zetland,	500	0	0
Anonymous,	500	0	0

The total amount of subscriptions received was £149,048, 2s. 5d.

EARL OF ROSEBERY provided £50 a year for Lectureship on Philosophy of Natural History for five years.

WILLIAM F. CUMMING, M.D., presented a Drinking Fountain, erected in the Quadrangle of the Old Buildings, in 1886.

JOHN HOPE, W.S., presented a Drinking Fountain to the University New Buildings, 1886.

ALEX. GIBSON, Esq., Advocate, bequeathed £2000, free of legacy-duty, to the General Fund of the University.

WILLIAM M'EWAN, Esq., M.P., founder of the M'Ewan University Hall. *See* end of Appendix.

ADAM GIFFORD, Senator of the College of Justice, bequeathed £25,000 for the foundation of a Lectureship for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term.

JOHN FULTON, Esq., bequeathed £3000 to General University Fund, the greater part of which has been devoted to the equipment of the new Engineering Laboratory, called the "Fulton Laboratory."

Miss ELIZABETH STEVEN, of Bellahouston—Founder of the Steven Lectureship in connection with the Chair of Agriculture.

ALEXANDER LOW BRUCE, Esq., Edinburgh, bequeathed £5000 to assist in founding a Chair of Public Health.

Rev. JOSEPH TAYLOR GOODSIR bequeathed £900 to Supplement the Goodsir Memorial Fund.

Bequests and Donations during 1893-94.

I. *Bequests.*

George Scott, of Eagle Villa, Peckham, London, £1000 to found a Travelling Scholarship for purposes of Study or Research.

Alexander Low Bruce, of 10 Regent Terrace, Edinburgh, £5000 to assist in founding a Chair of Public Health.

Rev. Joseph Taylor Goodsir, £900 to Supplement the Goodsir Memorial Fund.

II. *Donations.*

Bust of the late Right Hon. John Inglis, D.C.L., LL.D., Lord Justice-General, who was Chancellor of the University 1868-1891.

Bust of the late John Rae, M.D., LL.D., the Arctic Explorer, and a valuable collection of Deer's Horns, Gold Watch, Medals, and a collection of Polar and other antiquities, presented by his widow, Mrs Rae.

Bust of the late James Miller, M.D., LL.D., F.R.S.E., &c., Professor of Surgery in the University, 1842-64, presented by his son, Alexander Gordon Miller, M.D.

Portrait of General Sir Joseph Straton, presented by Colonel G. L. Fraser, on behalf of the late Miss J. Straton Graham of Kirkside.

Skeleton of a Buffalo, mounted and ready for exhibition, presented by Dr W. S. Forbes, Philadelphia, U.S.A.

Donations to Library.

Besides various valuable contributions from the Governments of Great Britain, Canada, France, India, Italy, New South Wales, New Zealand, Japan, Norway and Sweden, Russia, Victoria, &c., the University has, in the course of the year 1893-94, received Donations from the following Universities:—Aberdeen, Aix-la-Chapelle, Andover, Basle, Birmingham, Bologna, Bombay, Budapest, Buenos Aires, California, Christiania, Cornell, Dundee, Glasgow, Groningen, Greifswald, Harvard, Heidelberg, Johns Hopkins, Kiel, Königsberg, Lahore, Leyden, Madras, Madrid, Manitoba, New York, Rome, Padua, Rostock, Toronto, Turin, Utrecht, Venezuela, Warsaw, Yale, Zaragoza. Many other public institutions at home and abroad have also sent their publications:—The Royal Society of Edinburgh; the Royal Scottish Geographical Society, Edinburgh; the Society of Scottish Antiquaries; the Royal Observatory, Edinburgh; the Physical Society, Edinburgh; the Church of Scotland Offices, Edinburgh; the Fishery Board for Scotland; the Highland and Agricultural Society; the Glasgow Archæological Society; the Royal Irish Academy; the British Museum; the Science and Art Department, South Kensington; the Royal Geographical Society, London; the Astronomical Society, London; the Greenwich Observatory; the Musical Association, London; the Birmingham Philosophical Society; the Musée Guimet; the Commission

für Erforschung des östlichen Mittelmeeres; the Smithsonian Institution; the United States National Museum; the Library of the Surgeon-General's Office; the Museum of Comparative Zoology, Harvard; New York State Library; the Royal Society, Victoria; the Australian Museum, Sydney; the New Zealand Institute; the Canadian Institute; the Geological Survey of the United States; the Geological Survey of Minnesota; the Geological Survey of India; the Geological Survey of Canada; the Archæological Survey of India; the Department of Agriculture, Michigan; the Botanic Gardens, Calcutta; the Botanic Gardens, Jamaica; the International Medical Congress; the Trustees of the Baird Lectures; the Trustees of the Hibbert Lectures; the English Guernsey Cattle Society; the Devon Cattle Breeders' Society; the Polled Cattle Society; the Highland Cattle Society of Scotland; the Shropshire Sheepbreeders' Association; the Hunters' Improvement Society; the Yorkshire Coach Horse Society, &c., &c.

Among the numerous private donors to whose liberality the Library has been indebted, are :—

Principal Sir William Muir—A valuable collection of Oriental, mainly Arabic, works, including a transcript of a very rare MS. of the Sirat Wakidi; a Koran, with interlinear Urdu translation; Maraccius, Alcorani textus universus cum prodromo ad refutationem Alcorani; Mâkâmât Herere; Freytag Lexicon Arabicum.

Professor Tait—A collection of Mathematical works, comprising the Observations of Cordova Observatory.

Professor Balfour—Miscellaneous MSS. bearing on the history of the University.

The Rev. Dr Hoernle—A collection of Oriental works, mainly Persian and Arabic, comprising Vuller's Lexicon Persicum; Hafiz, Lieder, ed. Brockhaus, 3 Bände, &c.

Professor Goodhart—History of Thucydides. Book VIII.

Professor Wallace—Farm Live-Stock (new edition).

Professor Nicholson—Principles of Political Economy.

Professor Butcher—Some Aspects of the Greek Genius (new edition).

Dr Bruce—Report of Ross and Cromarty County Council.

Mr Thomas M'Kie—Lyrics and Sonnets.

Rev. J. Evans—Christian Theology and Modern Theories.

Miss Stopes—Pamphlets relating to Shakespeare.

Rev. Dr George Smith—Life of Dr Carey (new edition).

Hon. Arthur Renwick—Threlkeld's, An Australian Language.

Mr Adams—Actes du huitième Congrès des Orientalistes.

Mr W. G. Campbell—Early Slavonic Book of Hours.

Professor Luigi Bodio—Numerous Statistical Works.

Rev. Professor Orr—The Christian View of God.

Abstract of Accounts of the University

FOR THE YEAR ENDING 31ST AUGUST 1893.

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ANNUAL SALARIES (EXCLUSIVE OF CLASS FEES) ATTACHED TO THE OFFICE OF PRINCIPAL, AND TO THE PROFESSORSHIPS, ASSISTANTSHIPS, AND EXAMINERSHIPS IN THE UNIVERSITY, BY ORDINANCE OF UNIVERSITIES COMMISSIONERS AND SUBSEQUENT DEEDS OF FOUNDATION.

PRINCIPAL.

Salary (besides Official Residence), - £1000 0 0

FACULTY OF ARTS.

	Salaries of Professors.	Salaries of Assistants.	Allowances for Class Expenses
Humanity	£239 5 0	£100 0 0	.....
Mathematics	250 1 8	100 0 0	.....
Greek	238 19 4	100 0 0	.....
Logic and Metaphysics	305 14 8	.....	.....
Moral Philosophy	305 14 8	.....	.....
Natural Philosophy	271 4 6	100 0 0	£100 0 0
Rhetoric and English Literature	269 0 2	.....	.....
History	167 5 0	.....	.....
Practical Astronomy[1]	317 5 0	.....	.....
Agriculture	367 5 0	.....	.....
Music	437 5 0	200 0 0	100 0 0
Sanskrit	451 18 10	.....	.....
Engineering	400 0 0	.....	24 0 0
Geology	404 10 2	.....	37 8 8
Political Economy	467 5 0	.....	50 0 0
Class Prizes in do.,	- - -	- - -	24 0 0
Education	382 6 2	.....	.....
Fine Art	441 3 4	.....	42 5 2
Celtic Chair	551 9 5	.....	.....

FACULTY OF DIVINITY.

Divinity (present value)	£426 2 2	.....	.....
Hebrew	300 0 0	.....	.....
Church History	350 0 0	.....	.....
Biblical Criticism (present value)	630 0 0	.....	.....

[1] The Professor is also Astronomer Royal.

FACULTY OF LAW.

	Salaries of Professors.	Salaries of Assistants.	Allowances for Class Expenses.
Public Law	£400 0 0	.....	.....
Civil Law	250 0 0	.....	.....
History	(See under Faculty of Arts.)		
Scots Law	100 0 0	.....	.....
Medical Jurisprudence	(See under Faculty of Medicine.)		
Conveyancing	105 0 0	.....	.....
Political Economy	(See under Faculty of Arts.)		

FACULTY OF MEDICINE.

Botany[1]	£200 0 0	.....	.....
Institutes of Medicine	150 0 0	.....	.....
Practice of Physic	100 0 0	.....	.....
Anatomy	.....	£150 0 0	£50 0 0
Chemistry	200 0 0	200 0 0	100 0 0
Midwifery	100 0 0	.....	.....
Natural History	195 15 2	.....	.....
Materia Medica	100 0 0	25 0 0	50 0 0
Clinical Surgery	100 0 0	.....	.....
Medical Jurisprudence	100 0 0	25 0 0	35 0 0
Surgery	100 0 0	.....	.....
General Pathology	100 0 0	.....	.....

In addition to the permanent allowances for Assistants and Class Expenses entered above,—annual grants for the same purposes are made by the University Court from the General University Fund. The amount for 1892-93 was :—

For Assistants,	£1,327 10 0
For Class Expenses,	359 0 0
	£1,686 10 0

ADDITIONAL EXAMINERS FOR DEGREES.

		Salaries.
In Arts	Classical Literature	£120 0 0
	Mental Philosophy	120 0 0
	Mathematics	120 0 0
	Schoolmaster's Diploma	6 6 0
In Medicine—13 Examiners at £75		975 0 0
In Divinity—2 Examiners, each £26, 5s.		52 10 0
In Law—2 Examiners, a share of Fees up to £26, 5s. each		52 10 0
In Science—one Examiner in Civil Engineering		6 6 0
In Agriculture—4 Examiners at £6, 6s. each		25 4 0

[1] This includes £100 formerly paid to the Regius Keeper of the Botanic Garden.

SUMMARY,
INCLUDING ANNUAL GRANTS BY UNIVERSITY COURT.

	Salaries.
Principal - - - - - -	£1,000 0 0
Chairs in the Four Faculties - - - -	10,074 10 3
Assistants - - - - -	2,327 10 0
Examiners in Arts, Medicine, Divinity and Law[1] -	1,474 13 0
Allowances for Class Expenses - - -	972 13 10
	£15,849 7 1

STATEMENT
SHOWING THE CAPITAL OF THE UNIVERSITY IN 1893, AND INCOME AND EXPENDITURE FOR THE YEAR 1892-93.

The University is maintained—1. By interest, &c., accruing from Capital Funds in charge of the University Court; 2. by Annual Payments made from Crown and Parliamentary Grants, and from an annuity payable by Act of Parliament out of the Revenues of the Harbour and Docks of Leith; 3. by Matriculation, Graduation, and other Fees, paid annually; and 4. by annual payments by public bodies or private persons, and from Bursary Funds, of which neither principal nor interest is in the hands of the Court. The income derived from the last of these sources is omitted from the present Statement, because the Court have not hitherto been able to obtain the necessary information for determining its amount, having no control over these funds or their application.

A.—CAPITAL IN CHARGE OF THE UNIVERSITY COURT, INCLUDING FLOATING BALANCES.

As at 31st August 1893.

I.—DESTINED FOR SPECIAL PURPOSES BY DEED, STATUTE, OR ORDINANCE.

1. For Salaries of Professors, viz. :—	
(1.) Pulteney Foundation (Agricultural Chair) -	£957 18 2
(2.) Thomson Foundation (4-5ths Nat. Hist. Chair)	991 7 2
(3.) Muir Foundation (Sanskrit Chair) - -	6,250 6 8
(4.) Reid Foundation (Music Chair) - - -	12,000 0 0
(5.) Baxter Foundation (Engineering Chair) -	5,037 17 6
(6.) Murchison Foundation (Geology Chair) -	5,045 9 2
(7.) Watson-Gordon Foundation (Fine Art Chair)	11,103 16 0
(8.) Bell Foundation (Education Chair) - -	10,555 11 6
(9.) Celtic Chair, - - - - - -	14,205 3 0
Carry forward	£66,147 9 2

[1] £540 of this sum is payable out of Government grant.

		Brought forward			£66,147	9	2
(10.)	Gifford Lectureship, - - - -				23,505	7	2
(11.)	Baxter Fund for further endowment of Chairs in the Faculty of Arts, excepting Engineering and Sanskrit, - - - -				17,980	11	11
(12.)	Steven Lectureship in Agriculture, - -				3,016	9	0
(13.)	Chair or Lectureship on Forestry, - -				1,000	0	0
		TOTAL			£111,649	17	3
2.	For Class Expenses and Assistants :—						
(1.)	Reid Found. (Music Chair),	£8,500	0	0			
(2.)	Baxter Found. (Engineering Ch.)	611	13	10			
(3.)	Murchison Found. (Geology Ch.)	1,003	19	0			
(4.)	Thomson Foundation (1-5th Mineralogy), - -	247	16	10			
(5.)	Watson-Gordon Foundation -	1,109	19	3			
	TOTAL - - - -				11,473	8	11
3.	For Reid Commemoration Concert - - -				8,000	0	0
4.	For Bursaries, Scholarships, Fellowships and Prizes :—						
(1.)	Aitken Scholarship - -	£3,078	17	0			
(2.)	Ardvorlich Bursary - -	412	0	0			
(3.)	Neil Arnott Prize - -	1,211	13	6			
(4.)	Neil Arnott Scholarship -	1,154	14	0			
(5.)	Baxter Mathematical and Philosophical Scholarship -	3,413	10	9			
(6.)	Baxter Natural and Physical Science Scholarships -	4,077	14	0			
(7.)	Misses Baxter of Balgavie's Scholarships - -	4,232	15	3			
(8.)	John Edward Baxter Scholarships	7,964	3	1			
	Do., For Examiners' Fees	360	13	1			
(9.)	Bruce of Grangehill & Falkland's Scholarships and Bursaries	14,903	6	2			
(10.)	Beaney Prize - -	1,000	0	0			
(11.)	Cairns Bursary - -	474	10	0			
(12.)	Cameron Prize - -	2,795	0	4			
(13.)	Dr John Aitken Carlyle's Medical Bursaries - - -	1,679	18	6			
(14.)	Cousin Prize - -	463	12	4			
(15.)	Bailie Cousin Bursary, -	706	7	10			
(16.)	Cobb Scholarship - -	993	12	8			
(17.)	Crichton Bursaries, - -	30,254	6	6			
(18.)	Drummond Scholarship -	2,721	7	3			
	Do., For Examiners' Fees	304	8	9			
	Carry forward	£82,202	11	0	£131,123	6	2

	Brought forward	£82,202	11	0	£131,123	6	2
(19.)	Dickson Travelling Fund	3,114	13	7			
(20.)	Dundas Bursaries	913	3	1			
(21.)	Edinburgh University Endowment Association Arts Bursaries (revenue on hand)[1]	60	0	0			
(22.)	Ettles Divinity Scholarships	3,309	8	11			
(23.)	Ettles Medical Scholarship	1,000	0	0			
(24.)	Ellis Prize	832	10	5			
(25.)	Exhibition of 1851 Scholarships	75	0	0			
(26.)	Falconer Memorial Fellowship	2,944	4	8			
	Do., For Examiners' Fees	110	19	2			
(27.)	Fotheringham & Forrest Bursaries	1,225	19	8			
(28.)	James Fairbairn Scholarship	1,074	1	9			
(29.)	Freeland Barbour Fellowship	1,545	7	10			
(30.)	Donald Fraser Bursary in the Physical Sciences,	1,566	0	6			
(31.)	Glover Divinity Scholarship	1,184	9	2			
(32.)	Gray Scholarships	2,296	2	0			
(33.)	Guthrie Fellowship	2,609	9	2			
(34.)	Grierson Bursaries	10,595	1	6			
(35.)	Gunning Theological Scholarships[1]	121	1	11			
(36.)	Goodsir Memorial Prize	983	15	3			
(37.)	Hamilton Philo. Fellowship	2,645	10	6			
	Do., For Examiners' Fees	154	6	10			
(38.)	Harrison Bursary	992	16	10			
(39.)	Hope Prize	2,509	17	1			
(40.)	Robert Hunter Bursaries	1,039	2	6			
(41.)	Jardine Bursary	920	5	3			
(42.)	Jardine of Thorlieshope Bursaries	4,348	6	6			
(43.)	Johnstone of Harthope Bursary	558	2	0			
(44.)	Jeffrey Scholarships	4,573	18	11			
(45.)	David Kidd Div. Scholarship	1,066	9	10			
(46.)	Kelland Memorial Prize	156	2	6			
(47.)	Leith Harbour Annuity Fund	1,325	5	0			
(48.)	Lang's Bequest	439	1	4			
(49.)	Lockerby Bursary	1,013	5	10			
(50.)	Lorimer Travelling Scholarship	1,251	4	5			
(51.)	Leckie Mactier Fellowship	2,041	16	9			
(52.)	Charles Maclaren Scholarship	2,836	14	7			
	Do., For Examiners' Fees	216	1	11			
(53.)	Maxton Scholarship	1,078	17	0			
(54.)	Mackenzie Classical Scholarship	3,171	9	3			
	Carry forward	£150,102	14	5	£131,123	6	2

[1] Capital not in hands of University Court.

	Brought forward	£150,102	14	5	£131,123	6	2
(55.)	Macpherson Bursaries -	2,859	9	9			
(56.)	Mackenzie Bursaries in Anatomy	1,011	14	2			
(57.)	Marshall Bursary - -	1,010	2	2			
(58.)	MacKinnon Bursaries -	1,607	14	5			
(59.)	Mann Bursaries - -	2,059	11	1			
(60.)	Mackie Bursaries - -	1,824	13	7			
(61.)	Maclaurin Bursary - -	2,117	6	4			
(62.)	Milner Fothergill Prize -	322	16	5			
(63.)	Muirhead Prize - -	500	0	0			
(64.)	Newton Bursaries - -	2,442	11	1			
(65.)	Prizes in Sanskrit, *Capital applicable* - - -	38	6	8			
(66.)	Pitt Club Classical Scholarship	1,706	14	9			
(67.)	Pitt Club Theological Scholarship	3,316	0	7			
(68.)	Patrick Bursaries - -	3,496	3	7			
(69.)	Pattison Bursary - -	374	17	8			
(70.)	Rhind Scholarships - -	5,093	4	4			
(71.)	Renton Bursary in Arts -	551	11	9			
(72.)	Renton Bursary in Divinity -	550	6	3			
(73.)	Horsliehill Scott Bursaries -	2,080	0	9			
(74.)	Shaw Philosophical Fellowship	4,364	15	2			
(75.)	Shortt Bursary - -	273	8	7			
(76.)	Steven of Bellahouston Scholarship - - -	2,033	11	0			
(77.)	Syme Surgical Fellowship -	3,013	19	2			
	Do., For Examiners' Fees	232	14	3			
(78.)	Scott and Dunbar Prize -	325	15	2			
(79.)	Dobbie Smith Prize -	159	17	9			
(80.)	Mackay Smith Scholarships -	2,975	0	0			
	Do., For Examiners' Fees	123	7	0			
(81.)	Stark Scholarship - -	1,427	5	6			
(82.)	James Scott Scholarship -	1,035	14	0			
(83.)	Tarsappie Bursary - -	168	2	4			
(84.)	Trevelyan Scholarship - -	1,017	7	2			
(85.)	Vans Dunlop Scholarships -	66,880	5	8			
(86.)	Wightman Prize - -	386	16	6			
(87.)	Robert Wilson Memorial Prize	250	16	2			
(88.)	Webster Bursaries - -	4,162	11	8			
(89.)	John Welsh Bursaries -	3,932	7	3			
(90.)	Whitelaw Bursaries - -	2,131	3	3			
(91.)	King William III. Bursaries	18	14	0			
	TOTAL				277,979	11	4
5.	Principal's Official Residence - - -				4,694	0	0
	Carry forward				£413,796	17	6

Brought forward	£413,796	17	6
6. For Completion of present College Buildings :— Robert Cox's Bequest, with interest - -	21	10	2
7. Gilchrist Fund for purchase of apparatus - -	2,208	12	3
8. Eskbank Feu-Duties—Casualty Fund - -	226	3	2

II.—CAPITAL, THE INCOME OF WHICH IS APPLICABLE FOR THE GENERAL PURPOSES OF THE UNIVERSITY.

(1.) General Reid's Trust Fund, Balance after setting aside sufficient Capital to provide Income for Special Purposes as above	£20,000	0	0		
(2.) General Sir Joseph Straton's Trust Fund - - -	14,039	15	8		
(3.) Robert Cox's Bequest -	1,794	14	8		
(4.) Alexander Gibson's Bequest -	2,000	0	0		
				37,834	10 4

III.—DISPOSABLE CAPITAL BELONGING TO GENERAL UNIVERSITY FUND, AS AT 31ST AUGUST 1893.

1. Heritable Securities, &c. - -	£22,905	13	10		
2. Balances in Bank, &c. - -	3,106	6	5		
Total Disposable Capital				26,012	0 3
Total Capital in charge of University Court,				£480,099	13 8

B.—INCOME OF THE UNIVERSITY DESTINED BY DEED, STATUTE, OR ORDINANCE, 1892-93.

1. For Salaries of Principal and Professors :—			
(1.) From Interest, &c., of Funds in Charge of the University Court. See Statement of Capital, A. I. 1. - - - - -	£3,035	9	2
(2.) From Leith Harbour Annuity - - -	1,053	13	1
(3.) From Parliamentary Grant - - - -	6,318	7	3
(4.) From Deanery of the Chapel Royal - -	900	0	0
(5.) From Land Revenues of the Crown - -	250	0	0
(6.) Foundation for Conveyancing Chair, paid yearly by Society of Clerks to H.M. Signet	105	0	0
(7.) From Funds of George Watson's and Daniel Stewart's Hospitals - - - -	450	0	0
2. For Class Assistants and Class Expenses :—			
(1.) From Reid Fund for Music Chair. See Statement of Capital. A. I. 2. £300 0 0			
Carry forward £300 0 0	£12,112	9	6

	Brought forward	£300	0	0	£12,112	9 6
(2.)	From the Gen. Univ. Fund, for the Chairs of Chemistry, Nat. Philosophy, Anatomy, Materia Medica, and Medical Jurisprd.	735	0	0		
(3.)	From Foundation for Chair of Engineering	23	7	10		
(4.)	From Murchison Foundation for Chair of Geology	36	8	11		
(5.)	From Thomson Fund (Mineralogy), for Do.	8	12	6		
(6.)	From Parliamentary Grant for Class Assistants in Faculty of Arts	861	10	0		
(7.)	From Funds of Geo. Watson's and Daniel Stewart's Hospitals for Chair of Commercial Economy	50	0	0		
(8.)	From Watson-Gordon Fund for Chair of Fine Art	41	3	2		
					2,056	2 5
3.	For Non-Professorial Examiners in Arts and Medicine, From Parliamentary Grant				635	6 0
4.	For Scholarships, Bursaries, and Prizes :—					
(1.)	From Capital Funds in Charge of University Court. See Statement of Capital, A. I. 4	£10,047	15	2		
(2.)	From Leith Harbour Annuity	414	2	4		
(3.)	From Funds of Geo. Watson's and Daniel Stewart's Hospitals for Chair of Commercial Economy	24	0	0		
					10,485	17 6
5.	For Gifford Lectureship in Natural Theology				809	1 6
6.	For Steven Lectureship in Agriculture				102	6 7
7.	For Reid Commemoration Concert, from Reid Fund, See A. I. 3				300	0 0
8.	For Lectures on Forestry from Special Government Grant				100	0 0
9.	For Lectures on Agriculture to Rural Schoolmasters from Special Government Grant, and Contributions by County Councils of Berwick and Forfar				446	3 6
10.	For Pensions to Ret. Profs. from Parliamentary Grant				2,890	15 6
11.	For Lectureship on Forestry				34	2 3
12.	For purchase of Scientific Apparatus from Gilchrist Fund				80	8 0
13.	For Management of Special Funds from interest of Floating Balances				98	18 9
14.	For Casualty and Expenses on Eskbank Feu-duties				26	16 4
15.	For completion of College Buildings, from Cox Fund				0	6 11
	Total Destined Income				£30,178	14 9

C.—TOTAL UNIVERSITY INCOME.

Destined Income as above - - - -		£30,178	14 9
General Fund Income, as below	£16,369 19 7		
Less Amount destined by Ordinance for Assistants and Class Expenses, entered above, C. 2 (2.) - -	735 0 0		
		15,634	19 7
Total University Income - - -		£45,813	14 4

D.—INCOME AND EXPENDITURE OF GENERAL UNIVERSITY FUND, 1892-93.

I.—INCOME.

1. Matriculation Fees - - - -		£3,190	10 0
2. Graduation Fees, viz.:—			
(1.) Arts - - -	£426 12 6		
(2.) Science - - -	345 16 6		
(3.) Medicine - - -	6,476 5 6		
(4.) Divinity - - -	47 5 0		
(5.) Law - - - -	67 4 0		
		7,363	3 6
3. Fees of Registration of Members of General Council		398	0 0
4. Fees of Admission to Library - - -		40	8 6
5. Interest of Invested Funds and Bank Accounts -		879	18 7
6. From Funds bequeathed to the University for General Purposes, viz.:—			
(1.) General Sir Joseph Straton's Bequest - - -	£488 13 6		
(2.) Robert Cox's Bequest -	69 19 2		
(3.) Alexander Gibson's Bequest	65 4 9		
		623	17 5
7. From Funds partly appropriated to Special Purposes, the Surplus Revenues of which fall to the General University Fund, viz.:—			
(1.) Leith Harbour Annuity Fund	£689 8 9		
(2.) General Reid's Trust Fund -	691 5 6		
		1,380	14 3
8. From Parliamentary Grant:—			
(1.) Year's grant for Buildings -	£500 0 0		
(2.) Do., Library -	575 0 0		
(3.) Unappropriated portion of quarter's grant - -	1,247 5 2		
		2,322	5 2
Carry forward - - -		£16,198	17 5

	Brought forward - - -				£16,198	17 5
9.	Miscellaneous Receipts :—					
	(1.) For authority to publish Calendar	£100	0	0		
	(2.) For use of Rooms for Meetings, &c.	26	10	0		
	(3.) Sundries - - -	44	12	2		
					171	2 2
	Total General Fund Income - -				£16,369	19 7

II.—Expenditure.

General Administration :—

1.	*University Court*—					
	(1.) Secretary's Salary - - - -				£392	10 0
	(2.) Clerks' Salaries - - - -				266	0 1
	(3.) Sundries - - - - -				180	2 10
					£838	12 11
2.	*Senatus Academicus*—					
	(1.) Secretary's Salary - -	£245	6	3		
	(2.) Clerk and Assistant Clerks' Salaries - - -	334	5	4		
	(3.) Dean of Faculty of Medicine's Do.	98	2	6		
	(4.) Dean of Faculty of Arts' Do.	73	11	9		
	(5.) Dean of Faculty of Divinity's Do.	29	8	9		
	(6.) Dean of Faculty of Law's Do.	49	1	3		
	(7.) Convener of Science Degrees Committee - -	29	8	9		
	(8.) Sundries - - -	234	2	11		
					1,093	7 6
3.	*General University Council*—					
	(1.) Secretary's Salary - -	£9	16	3		
	(2.) Fee to Registrar - -	108	0	0		
	(3.) Meetings, Advertisements, &c.	177	16	7		
					295	12 10
4.	*Editing Calendar*— -			-	49	1 3
5.	*Factors*—					
	(1.) Salary - - -	£378	16	9		
	(2.) Sundries - - -	47	4	5		
					426	1 2
	Carry forward				£2,702	15 8

	Brought forward	£2,702	15 8
6. *Law Agents*—			
(1.) General Business Account -	£97 11 4		
7. *Auditor*— - - - - -		40	19 0
		£2,841	6 0
II. Library :—			
1. Librarians' Salaries - -	£1,002 10 0		
2. Books - - - -	1,040 19 8		
3. Bookbinding - - -	131 6 7		
4. Printing, Stationery, &c. -	133 8 0		
		2,308	4 3
III. Museums and Teaching Appliances :—			
1. Anatomical Museum - -	£228 17 6		
2. Botanical Herbarium - -	100 0 0		
3. Natural Philosophy Museum -	50 0 0		
4. Midwifery Do. - - -	15 0 0		
5. Teaching Appliances - -	336 7 5		
		730	4 11
IV. Buildings and Furnishings :—			
1. Maintenance, Repairs, and Renewals, &c. - - - -		3,107	15 2
V. Lighting, Heating, and Cleaning - -		1,257	15 10
VI. Public and Parochial Burdens and Feu Duty		511	19 6
VII. Insurance - - - - -		212	19 5
VIII. Service :—			
1. Janitor - - -	£155 0 0		
2. Music Class Room Keeper -	30 0 0		
3. Warder and Servitors and their Dress,	808 0 11		
		993	0 11
IX. Class Assistants and Class Expenses :—			
1. Allocated by Commissioners' Ordinance - - -	£735 0 0		
2. Allocated since by Senatus -	1,686 10 0		
		2,421	10 0
	Carry forward	£14,384	16 0

	Brought forward	£14,384 16	0
X. EXAMINERS :—			
1. Divinity - - -	£52 10 0		
2. Medicine - - -	843 4 6		
3. Arts - - - -	312 8 0		
4. Law - - - -	52 10 0		
		1,260 12	6
XI. PRINTING AND ADVERTISEMENTS :—			
1. Printing - -	£468 7 7		
2. Advertisements - -	296 15 10		
		765 3	5
XII. MEDALS AND PRIZES :—			
1. Class Medals - - -	£132 13 4		
2. Class Prizes - - -	165 0 0		
		297 13	4
XIII. ORDINARY GRADUATION EXPENSES :—			
M.D. Stamp Duty deducted - - -		97 14	6
XIV. INCIDENTAL GRANTS :—			
1. Athletic Club - - -	£10 10 0		
2. University Musical Association	10 0 0		
3. University Golf Club - -	5 0 0		
4. Grant to Students' Representative Council for erection of platform for reception of the British Association - -	5 19 6		
		31 9	6
		£16,837 9	3
XV. PURCHASE OF LECTURE HALL IN PARK PLACE, AND FEU-DUTY THEREON - - -		1,967 5	1
Total General Fund Expenditure -		£18,804 14	4

The University Court.

ABSTRACT OF THE PROCEEDINGS OF THE UNIVERSITY COURT, FROM 1ST MAY 1893, TO 1ST MAY 1894.

MONDAY, 15TH MAY 1893.—Principal Sir William Muir was re-appointed a Governor of the Trust for Education in the Highlands and Islands of Scotland for a period of five years from 1st August next, the date at which his present term of office expires.

It was agreed to advertise for an Additional Examiner in Mathematics for the Preliminary Examinations, and for Graduation in Arts and Science.

On the recommendation of the Senatus, the Court appointed Mr A. H. Briggs Constable, LL.B., Advocate, at present Additional Examiner in Political Economy for Graduation in Arts, to be Additional Examiner in the same subject for the LL.B. degree and for the degree of B.Sc. in Agriculture.

The Finance Committee reported that various accounts, awards by the Senatus of Scholarships, &c., had been passed for payment. The Works Committee submitted the Clerk of Works' report on jobbing work for the past half-year.

The Draft Ordinances Committee submitted their amendments on the Commissioners' Draft Ordinance (Edinburgh No. 8—Regulations for Degrees in Science in Public Health). Amendments as approved of by the Court, were directed to be forwarded to the Universities Commissioners.

MONDAY, 12TH JUNE 1893.—The Minutes of last meeting were submitted and approved.

Intimation had been received from the Universities Commission that the following Ordinances had been transmitted to the Secretary for Scotland for submission to Parliament, in terms of section 20 of the Universities (Scotland) Act, 1889:—Ordinance No. 27 (Edinburgh No. 6—Regulations as to application of Parliamentary Grants, as to Salaries, and for the Institution of a Fee Fund, and for other purposes); Ordinance No. 30 (Edinburgh No. 7—Foundation of Professorship of History, and for other purposes); Ordinance No. 31 (Glasgow, Aberdeen, and Edinburgh No. 1—Composition of the Faculties, and Institution of Faculties of Science); Ordinance No. 32 (Glasgow, Aberdeen, and Edinburgh No. 2—Pensions to Principals and Professors).

Mr William Harvey, LL.B., Advocate, Edinburgh, was appointed Additional Examiner in Physics for Graduation in Medicine and in Science in Public Health.

An application on behalf of the medical lecturers at Park Place, for a further extension of their tenancy of the premises held by them from the University, was agreed to.

A statement of the cost of the Preliminary and M.A. examinations, conducted in March and April last, was submitted and approved.

It was agreed to make an addition of one man to the present staff of University servants to be employed as a night watchman in order to secure continuous supervision of the University buildings.

Applications by J. H. Poynting, D.Sc., Professor of Physics, Mason College, Birmingham; Mr William Mair, Teacher of Practical Materia Medica, Dundee Royal Infirmary; and William Wood, M.B., C.M., Teacher of Practical Materia Medica in the Edinburgh Provident Dispensary, for the recognition of their respective Courses of Instruction as qualifying for Graduation in Medicine in the University, were granted.

The Finance Committee reported that various accounts, awards by the Senatus of Scholarships, &c., had been passed for payment.

Monday, 17th July 1893.—An application for the recognition (under section VII., 5, of the new Medical Ordinance) of the North Staffordshire Infirmary and Eye Hospital, Hartshill, Stoke-upon-Trent, as one in which candidates for the degrees of M.B. and Ch. B. may attend Medical and Surgical practice, was granted.

Copies of Orders of Her Majesty in Council, approving of Ordinances Nos. 20, 21, 22, and 24, were submitted.

The following Draft Ordinances were remitted to the Draft Ordinances Committee:—General No. 11—Regulations for the Degree of Bachelor of Laws (LL.B.); General No. 12—Regulations for the Degree of Bachelor of Law (B.L.); General No. 13—Honorary Degrees; General No. 14—Institution of Boards of Studies in the Faculties of Medicine and Science; General No. 15—Regulations as to Examinations, supplementary to Ordinance No. 13; General No. 16—Regulations for Degrees in Arts, supplementary to Ordinance No. 11; General No. 17—Supplementary Powers of University Court. A letter from the Universities Commissioners referring to Draft Ordinance General No. 16 was remitted to the same Committee.

It was intimated that Ordinances Nos. 27, 30, 31, and 32 had been laid before Parliament on 19th June last.

With reference to the admission of women to the study of Chemistry, Botany, and Zoology, for Graduation in Arts and Science—subject to the provisions of Ordinance No. 18 (General No. 9—Regulations for the Graduation of Women, &c.), the Court resolved to admit to examination for Graduation in Arts any woman who has received the requisite instruction in these subjects in any Scottish University, or in the Edinburgh School of Medicine for Women, Surgeon Square, or in

the Medical College for Women, Chambers Street, Edinburgh; and, subject to the provisions of the same Ordinance, to admit to examination for Graduation in Science any woman who has received the requisite instruction in these subjects in any other University or Institution already approved by the Court with a view to the graduation of men, or under any teacher already recognised with that view, or in the above-named Edinburgh Schools for the Medical Education of women.

Mr David B. Mair, M.A., Christ's College, Cambridge, was appointed Additional Examiner in Mathematics and Natural Philosophy for the Preliminary Examinations, and for Graduation in Arts and Science, for a period of four years from 1st October next.

Intimation was made of a Bequest of £1000 by the late George Scott of Eagle Villa, Queen's Road, Peckham, London, and Tullypowrie, Perthshire, for the foundation of one or more scholarships.

The gift to the University of a marble bust of the late Chancellor of the University, Lord Justice-General Inglis, was accepted with thanks to the donors.

On an application by Professor Baldwin Brown, the Court sanctioned for next winter session a fee of £2, 2s. from students attending a short additional course of forty lectures on "The Arts of Mediæval Britain, from the time of Edward the Confessor, with special regard to their connection with the general life of the period," the course being under the five shillings entrance fee regulation.

The Finance Committee reported that various accounts, awards by the Senatus of Scholarships, &c., had been passed for payment.

The Court approved of the recommendations of the Works Committee as to the improvement of gas lighting in the Fine Art Department and in the Music Class-Room; cleaning and painting of the Geology Department, and of the Associated Societies' Hall; the repair of the balustrade in the quadrangle of the old buildings; and painting the rooms of certain departments in the new buildings.

The Court granted the use of rooms in the old buildings for meetings in connection with the Congress of the British Institute of Public Health, which meets shortly in Edinburgh. The ordinary meeting of the Court in October next was postponed from the 16th to the 30th of that month.

Monday, 30th October 1893.—The Minutes of meeting of 17th July last were submitted and approved.

The Minutes of the special meeting of 23rd October, which had been called to consider an application for a contribution towards the purchase of a Recreation Field to become the property of the University, were read and approved. The Minutes bore that the Court intends, so soon as the Financial Ordinance No. 27 comes into force, to make a contribution of £2000 from University Funds towards the aforesaid object, subject to certain conditions.

It was reported that Ordinance No. 34 (Edinburgh No. 8—Regula-

tions for Degrees in Music), and Ordinance No. 35 (Edinburgh No. 9 —Regulations for Degrees in Science in Public Health), had been laid before Parliament on 3rd August last.

It was reported that Draft Ordinance (General No. 18.—Fees for Matriculation and Entrance, and for Graduation in Arts, Science, Law, and Divinity) had been received, and that the time for lodging objections, &c., expires 22nd December next. The Draft Ordinance, together with a letter from the Universities' Commission with regard to the Foundation of New Professorships and Lectureships, was remitted to the Draft Ordinances Committee.

It was reported that Mr Goschen's term of office as Rector expires 15th November next; that the term of office of the following Assessors expires 29th November next,—viz., the Lord Justice-Clerk, Mr M'Kie, and Professor Sir William Turner; and that Sir William Muir's term of office as a Curator of Patronage expires 5th December next.

An Extract Minute of the General Council, of date 27th October, was read, intimating the election of Messrs John Hope Finlay, W.S., and Alex. Taylor Innes, Advocate, to be Assessors in the University Court as from 29th November next, in room of the Right Hon. J. H. A. Macdonald, Lord Justice-Clerk, and Thomas M'Kie, Advocate.

The Court's representatives on the Museums Committee were re-appointed for the current year.

On the recommendation of the respective Professors, the University Assistants in the several Departments were appointed for the year from 1st October.

It was resolved to re-appoint Dr Knott to the Lectureship in Applied Mathematics for a period of five years from 1st October. It was also agreed, as recommended by the Senatus, that, in addition to the Courses in Applied Mathematics and in Natural Philosophy (Intermediate Honours), he should be authorised to conduct a class during the ensuing summer session on the Theory of Electricity and Magnetism.

It was reported that Professor Sir William Turner had been re-elected by the Senatus as an Assessor in the University Court as from 29th November next.

Amendments by the Senatus on Draft Ordinances General Nos. 12, 13, 16, and 18, were referred to the Draft Ordinances Committee.

Mr J. H. Salter, B.Sc., University College, Aberystwyth, was recognised as a Teacher whose Course of Instruction in Botany qualifies for Graduation in Medicine in the University.

Dr Alexis Thomson, Edinburgh, was recognised as a Teacher whose Course of Instruction in Surgery shall qualify for Graduation in Medicine in the University.

The Draft Ordinances Committee submitted amendments on Draft Ordinance (General No. 13—Honorary Degrees) and (General No. 17—Supplementary Powers of University Court). The Committee submitted no amendments on Draft Ordinances General Nos. 11 and 12.

The Court re-appointed Mr James Mackinnon, Ph.D., to be the Additional Examiner in History for the current year.

The Court agreed to accept, with thanks to the donor, a collection of Arctic Relics, &c., presented to the University by the widow of the late Dr John Rae.

The Court agreed to accept, with thanks to the donor, a gift to the University of MS. notes on the History of America by the late Dr Andrew Brown, Professor of Rhetoric and English Literature in this University.

The Court approved of arrangements proposed by Senatus to secure that half-courses in Latin, Greek, and Mathematics be suitably combined so as to constitute whole courses, either by the inclusion of summer half-courses, or by the combination of a half-course during winter with a summer half-course.

Monday, 13th November 1893.—This being the last meeting at which the Lord Justice-Clerk and Mr Thomas M'Kie, Assessors of the General Council, whose term of office expires on 29th instant, were to be present, these gentlemen expressed the pleasure they had had in working with their colleagues during their period of office. Sir William Muir then conveyed the thanks of the Court to them for their services, and regret at the prospect of losing them.

The Minutes of last meeting, 30th October, were submitted and approved.

It was reported that intimation had been received of the election on the 11th instant of the Right Hon. J. P. B. Robertson, Lord Justice-General, to be Rector of the University for three years, in virtue of which he became a member of the Court.

Principal Sir William Muir was re-appointed a Curator of Patronage of the University for three years from 5th December next.

A letter from the Universities Commissioners was read, intimating their intention to issue a supplementary Ordinance in Medicine, relating to the acceptance, for purposes of Graduation in Medicine, of a Course of Study and Examination for a Degree in Arts or Science of a Scottish University, which includes Botany, Zoology, Physics or Chemistry.

A letter from Professor Goudy, intimating his resignation of the Chair of Civil Law as from 1st January next, was read.

The Court adopted a recommendation of the Business and Law Committee, that women students attending extra-mural classes in Chemistry, Botany, or Zoology, in Edinburgh, for Graduation in Arts or Science, must at the commencement of each year of such attendance enrol their names in a book to be kept in the University for that purpose, and pay a fee of the same amount as the matriculation fee paid by students of the University, such women students having, in respect of such payment, a right to the use of the Library of the University. It

was ordered that intimation of this resolution should be made in the University Calendar.

The Works Committee submitted their annual reportof the work done and expenditure incurred on the University Buildings during the past financial year, and estimate of the probable sum to be expended on the buildings during the current year. The report was remitted to the Finance Committee for consideration in connection with their annual financial report, in accordance with the Court's Standing Orders.

The Works Committee also submitted their report on repairs and jobbing work carried out during the past half-year.

The Draft Ordinances Committee submitted their amendments on the Commissioners' Draft Ordinances General Nos. 14, 15, 16, and 18, which were adopted.

The class returns of the University and of Extra-Mural Teachers for 1892-93 were submitted, and referred to a committee for report. In connection therewith it was reported that intimation had been received (1) that Dr Joseph Coats now lectured in the University of Glasgow, and therefore his recognition need not now be continued ; and (2) that Mr D. H. Scott, Ph.D., had resigned his office of lecturer on botany in the Royal College of Science, South Kensington, London.

Amendments suggested by the Faculty of Law on Draft Ordinance (General No. 11—Regulations for the Degree of Bachelor of Laws [LL.B.]) were submitted and referred to a committee.

The present Additional Examiners in Political Economy, Archæology, Geology, Astronomy, Modern Languages, Sanskrit, and Veterinary Hygiene, were re-appointed for the current academical year.

Mr T. G. Dickson, C.A., was appointed to audit the annual report on the state of the finances of the University for 1892-93, to the Secretary for Scotland.

On the recommendation of the Professor of Engineering, the Court appointed Mr W. H. Kerr, M.A. to be University assistant in Engineering *ad interim*.

Monday, 18th December 1893.—The Right Hon. the Lord Justice-General, who took his seat as a member of the Court, presided as *ex officio* President of the Meetings of the Court.

Mr J. Hope Finlay and Mr A. Taylor Innes also took their seats as members of the Court.

The Minutes of last meeting were submitted and approved.

Orders in Council had been received approving of the following Ordinances :—Ordinance No. 27 (Edinburgh No. 6—Fee Fund, &c.) ; Ordinance No. 30 (Edinburgh No. 7—Professorship of History) ; Ordinance No. 31 (Glasgow, Aberdeen, and Edinburgh No. 1—Composition of the Faculties, &c.) ; Ordinance No. 32 (Glasgow, Aberdeen, and Edinburgh No. 2—Pensions).

In was intimated that the Rector had appointed Lord Stormonth-Darling to be his assessor in the Court as from 24th November last.

The Court re-appointed Mr James Colston; Sir Thomas Clark, Bart; Mr J. Balfour Paul, Advocate, Lyon King; Mr J. Taylor Brown; and appointed the Rev. J. Sutherland Black, LL.D.; Mr J. Burgess, C.I.E., LL.D.; and the Rev. Alexander Martin, B.D., as their representatives on the Library Committee for the current academical year.

The Court, after consultation with the Senatus, resolved to institute a Lectureship in each of the following subjects: 1, French Language and Literature, and Romance Philology, and 2, German Language and Literature, and Teutonic Philology; and to make the appointments to these Lectureships not later than 1st May next. It was also agreed that the tenure of the Lectureships should be for five years, as from 1st October 1894, and might be renewed; and that the salary to be attached to each of the Lectureships should be £400 a year. Directions were given that these Lectureships should be advertised in due course.

The members of the Standing Committees were appointed for the current year.

The Lecturers in Latin, Greek, Rhetoric and English Literature, Logic and Metaphysics, Moral Philosophy, Mathematics, and Natural Philosophy, were re-appointed for the current academical year.

The Court approved of a recommendation of the Senatus that either of the two divisions of the winter course in Greek and Latin, before and after Christmas, shall be held to constitute a half-course for graduation, which may be combined with a summer half-course to form a whole course, the fee for each half-course to be £2, 2s.

The Court also approved of recommendations of the Senatus with reference to qualifying half-courses in Mathematics, and the combination of the same for purposes of graduation, on condition that these half-courses conform to the requirements of the Ordinance, the fee for each half-course to be £2, 2s.

The Court fixed the fee for the summer course of fifty lectures on the Theory of Electricity and Magnetism at £2, 2s.

Mr R. T. Kent, F.R.C.S. Eng., was recognised as a Teacher of Practical Anatomy in St Mungo's College, Glasgow.

The Court fixed the fee for a proposed Honours Course in History, to be delivered during the session 1894-5, at £3, 3s.

The Court approved of a new course in Advanced Experimental Physics (non-qualifying), at a fee of £2, 2s.

On the recommendation of the Business and Law Committee, the Court nominated the Rector, the Principal, the Lord Provost, Lord Stormonth-Darling, and Sir William Turner as the Court's representatives on a Joint Administrative Board, constituted in conjunction with the Highland and Agricultural Society, to aid the University Court in the consolidation of agricultural teaching in Edinburgh.

The Report on Statistics, &c., for 1892-93 to the Secretary for Scotland was submitted and approved.

The Finance Committee's Report on the Income and Expenditure of

the University for the past financial year, together with their estimate for the current year, was submitted and approved.

The same Committee reported a bequest by the late Rev. Joseph Taylor Goodsir, Edinburgh, of a sum of about £900, as an addition to the Goodsir Memorial Fellowship Fund.

The same Committee reported that securities to the value of £631, 7s. 1d. had been received from the Highland and Agricultural Society, being the sum collected by them towards the endowment of Forestry in the University.

Mr A. H. B. Constable, LL.B., Advocate, was re-appointed Additional Examiner in Political Economy for the LL.B. Degree, and for the Degree of B.Sc. in Agriculture for the current Academical year.

MONDAY, 15TH JANUARY 1894.—The Minutes of last meeting were submitted and approved.

It was intimated that the University's share of the Parliamentary Grant payable under the Local Taxation Account (Scotland) Act, 1892, for the two years 1892-3 and 1893-4 had been received.

It was intimated that the following Ordinances of the Universities Commissioners had been transmitted on 5th inst. to the Secretary for Scotland for submission to Parliament:—No. 39 (General No. 11—Regulations for the Degree of Bachelor of Laws [LL.B.]); No. 40 (General No. 12—Regulations for the Degree of Bachelor of Law [B.L.]); No. 41 (General No. 13—Honorary Degrees); No. 42 (General No. 14—Institution of Boards of Studies in the Faculties of Medicine and Science); No. 43 (General No. 15.—Regulations as to Examinations, supplementary to Ordinance No. 13); No. 44 (General No. 16—Regulations for Degrees in Arts, supplementary to Ordinance No. 11). Of these Ordinances No. 41 was remitted to the Draft Ordinances Committee for consideration and Report.

It was intimated that a grant of £550 had been received from the Board of Agriculture towards Instruction in Agriculture and Forestry in the University and other Institutions.

It was intimated that Mr Colston's term of office as Assessor nominated by the Lord Provost, Magistrates, and Town Council, expires 8th March next.

The Court elected Professor Chrystal as Examiner in Mathematics and Dynamics, Mr C. D. Campbell as Additional Examiner in Modern Languages, and Mr William Mitchell, M.A., D.Sc., as Additional Examiner in English, to represent the University on the Joint Board of Examiners for the year from 1st February next.

Intimation was made of a Bequest to the University of £5000 (less legacy duty) by the late Mr A. L. Bruce, Edinburgh, for the purpose of assisting to endow a Chair of Public Health.

A letter was submitted from the Highland and Agricultural Society,

withdrawing their subvention of £150 hitherto made annually to the Chair of Agriculture.

The Court's Report on the State of the Finances of the University for 1892-93 to the Secretary for Scotland, under section 30 of the Universities (Scotland) Act, 1889, was submitted and approved.

With reference to the consolidation of the agencies in Edinburgh engaged in the teaching of Agriculture and kindred subjects, undertaken by the Court on the suggestion of the Board of Agriculture, and to the Joint Administrative Board recently instituted to advise the Court as to the distribution of such grants as may be received from Government for these objects, and consisting of representatives of the Court and others, intimation was made of the members of the Highland and Agricultural Society who had been nominated to represent the Society on the Joint Administrative Board.

On the recommendation of Professor Sir Douglas Maclagan, the Court appointed Dr J. Buchanan Young to be second assistant in Medical Jurisprudence for the current academical year.

The Court approved of a recommendation of the Senatus that Dr J. Beard should be appointed Substitute Lecturer on Embryology for the remainder of the current session, and that he should give a Course of Instruction on Embryology, extending over not less than twenty-five meetings.

The Committee on the Class Returns of the University and Extra-Mural Teachers for 1892-93 submitted their Report.

Monday, 12th February 1894.—The Minutes of last meeting were submitted and approved.

It was intimated that Orders of Her Majesty in council, of date 29th ult., had been received approving of the Commissioners' Ordinances No. 34 (Edinburgh No. 8—Regulations for Degrees in Music), and No. 35 (Edinburgh No. 9—Regulations for Degrees in Science in Public Health); and that Ordinances Nos. 39 to 44 inclusive had been laid before Parliament.

A gift of nine volumes of the complete series of memoirs of "The Rothamsted Experiments," proffered by the Board of Agriculture, was accepted with thanks.

Dr Heron Watson was re-appointed a Curator of Patronage for three years from 13th April next.

Mr J. H. Burrage, B.A., was appointed Second Assistant in Botany for the current academical year, on the recommendation of the Professor.

Receipt was intimated of a sum of £24 from the Berwick County Council for defraying the expenses of certain members of the last Vacation Class in Agriculture.

A recommendation of the Senatus that the practical lessons in Geology should consist of ten meetings of two hours each, instead of twenty meetings of one hour each, was approved of for one year.

An application by Henry E. Clark, Professor of Surgery in St Mungo's College, Glasgow, for recognition as a teacher whose Course of Instruction in Surgery qualifies for Graduation in Medicine in the University, was granted. An application by Alexander Miles, M.D., Edinburgh, for recognition as a teacher whose Courses of Instruction in Anatomy and in Practical Anatomy qualify for Graduation in Medicine in the University, was granted.

Regulations for the administration of the Patterson Bursary in Anglo-Saxon Grammar and Literature, recommended by the Senatus, were, subject to a slight amendment, approved of.

The Finance Committee submitted their scheme of distribution of the grant of £550 received from the Board of Agriculture towards instruction in Agriculture and Forestry in the University and other Institutions for the year ending 31st proximo.

On the recommendation of the same Committee, a grant of £30 was made to the Interim Lecturer on Embryology for the purchase of apparatus, &c.

On the recommendation of the same Committee, the Court approved of an annual grant of £35 to the Students' Representative Council as from 1st October last.

The same Committee intimated that the trustees of the Buchanan Scholarship Fund were willing to hand over the trust funds to the Court, and recommended their acceptance. It was agreed to accept transfer of the fund.

It was intimated that the report by the Science Degrees Committee on the proposed Special Course in Agriculture for schoolmasters (autumn 1894) had been generally approved of by the Joint Administrative Board on Agriculture, to whom it had been referred.

Monday, 12th March 1894.—The Minutes of last meeting were submitted and approved.

The following Draft Ordinances of the Universities Commissioners were remitted to the Draft Ordinances Committee :—Edinburgh No. 10—Regulations for Degrees in Medicine, supplementary to Ordinance No. 16, (General No. 19—Regulations as to Bursaries, &c.). (General No. 20—Regulations for admitting Women to Bursaries, &c.). (Edinburgh No. 11—Regulations for Stuart Foundation). (Edinburgh No. 12—Regulations for Patrick Foundation). (Edinburgh No. 13—Regulations for Wight, M'Call, and Christie Foundations). (Edinburgh No. 14—Regulations for Grant Foundation). (Edinburgh No. 15—Regulations for the Dalgleish and M'Morran Foundation).

It was intimated that the Magistrates and Town Council had re-elected Mr James Colston as their Assessor in the University Court for three years, as from 8th inst.

It was intimated that Mr James Mackintosh, B.A., Advocate,

having presented his Commission as Professor of Civil Law in the University, was duly inducted as a member of Senatus.

The Librarian's Report on the Library for 1892-93, under Ordinance of the Commissioners of 1858, was submitted and approved.

A recommendation of the Senatus that the Honours Courses held by the Lecturers in Latin and Greek in summer shall qualify as Half-Courses for the Degree in Arts with Honours, was approved.

It was agreed to reduce the fee for the class of Sanskrit from £4, 4s. to £3, 3s.

It was agreed that each candidate should pay a fee of 10s. 6d. at each period of entering for the Preliminary Examination for Degrees in Music.

On the recommendation of the Senatus, the M.A. Degree of Lawrence University, Wisconsin, U.S.A., was recognised for purposes of Graduation in Mental Science (D.Sc.) in this University.

On the recommendation of the Senatus, the Court approved of the Yorkshire College, Leeds, as an Institution in which the courses of instruction in Chemistry, Botany (with botanical laboratory work), Agricultural Chemistry, Veterinary Science, and Economic Entomology, qualify for purposes of Graduation in Science in Agriculture in this University.

On the recommendation of the Professor, Mr J. M. Irvine, M.A., LL.B., Advocate, was appointed University Assistant in Civil Law for the current academical year.

Mr D. A. Stevenson, B.Sc., C.E., was appointed Additional Examiner in Engineering for the remainder of the term of office of the late Mr Alexander Leslie, C.E., viz.—to 31st December next.

Intimation was made of a bequest of £50 (which may ultimately be increased) by the late Philip Nelson, M.D., Solway Cottage, Annan, for behoof of the building fund of the University.

Monday, 16th April 1894.—The Minutes of last meeting were submitted and approved.

It was intimated that the Commissioners' Ordinance No. 50 (General No. 18—Fees for Matriculation and Entrance, and for Graduation in Arts, Science, Law, and Divinity) had been laid before Parliament on 2nd inst.

The Court appointed M. Charles Sarolea, Ph.D., D.Litt., Brussels, to the Lectureship in French Language and Literature and Romance Philology; and Herr Otto Schlapp, Edinburgh, to the Lectureship in German Language and Literature and Teutonic Philology, for a period of five years in each case as from 1st October next.

The Court appointed J. M. Cotterill, M.B., C.M., Assistant Surgeon, Royal Infirmary, to be an Additional Examiner in Clinical Surgery in the University for the period to 31st September 1895.

On the recommendation of the Professor, the Court appointed Mr

John D. F. Gilchrist, M.A., B.Sc., to be second Assistant in the Department of Natural History for the remainder of the current academical year.

On an application by Professor Andrew Jamieson, M.Inst.C.E., Technical College, Glasgow, the Court agreed to recognise his day lecture and laboratory courses in Electrical Engineering as an optional subject, qualifying *pro tanto* for the degree of B.Sc. in Engineering in this University.

It was reported that the Senatus had agreed to extend the benefit of clause xxii. of the Arts Ordinance to Mr W. R. Hume, on grounds specified in their report.

The Court fixed the fee for a course of twenty lectures on Counterpoint and Composition by the Professor of Music at £2, 2s.

The Court approved of a recommendation of the Senatus that the summer course of Advanced Mathematics by the Lecturer on Mathematics be recognised as a half course qualifying for graduation in Arts with Honours.

The following regulations for the Trevelyan Scholarships in Engineering were approved:—1. That a scholarship of half the income be offered yearly. 2. That it be tenable at this University for two years. 3. That candidates (*a*) must not be more than nineteen years of age; (*b*) must have passed the Preliminary Examination or its equivalent; and (*c*) must not have attended more than one winter and one summer course in Engineering and Field Work respectively, either in this University or elsewhere. 4. That the subjects of examination be (*a*) Mathematics, as far as the subjects required for the first B.Sc. Examination in Engineering; (*b*) Physics to the same extent; (*c*) Engineering (the subjects of the previous winter session and Field Work); (*d*) Geometrical Drawing and Elementary Graphics.

The Court resolved that candidates who fail to pass either in the whole or in one or more of the subjects of examination for degrees in Arts, Divinity, Law, and Science, with the exception of the degree of D.Sc., shall pay a fee of 10s. 6d. for each subject in which they have failed before they can be readmitted to examination in that subject. Candidates for the degree of D.Sc. shall pay a fee of £3, 3s. for each reappearance.

The Court approved of the Draft Ordinances Committee's amendments on Draft Ordinance (General No. 20—Regulations for admitting women to bursaries, scholarships, and fellowships), and with certain modifications on Ordinance No. 10 (Regulations for Degrees in Medicine, supplementary to Ordinance No. 16.) No amendments were suggested by the Committee on Draft Ordinances (Edinburgh) Nos. 11, 12, 13, 14, and 15.

Appendix.

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I.—UNIVERSITY LOCAL EXAMINATIONS.

The Board grant Certificates of two grades, viz., Junior and Senior, the Examinations for which are as nearly as possible on the same level as the Government Lower and Higher Grade Examinations.

The subjects of examination are divided into three classes—Preliminary Subjects, Special Subjects, and Extra Subjects.

The Preliminary subjects, in which *all* Candidates must undergo Examination, are—(1) English, (2) History and Geography, (3) Latin (optional for girls), (4) Arithmetic, (5) Scripture History *or* French Grammar.

Candidates who have passed the Sixth Standard (Education Code) and the second stage of two specific subjects, of which one at least is a foreign language, are exempted from the Preliminary Examination. For a list of Certificates, granted by other Examining Boards, which exempt Candidates from this Examination, see the *Regulations* published by the Board.

The Special subjects are—(1) for Junior Certificates: Department A.—Latin, Greek, French, German. B.—English, History, Geography, Scripture History. C.—Mathematics, Natural Philosophy, Physical Geography. (2) For Senior Certificate: A.—(as above), B.—English, History, Geography, Logic, Bible Knowledge. C.—Mathematics, Natural Philosophy. D.—Chemistry, Zoology, Botany, Physiology, Geology. E. (Commercial Certificate)—Arithmetic, Commercial History and Geography, Elements of Economics, and either French or German. Candidates for Junior and Senior Certificates must take *three* or *four* subjects,—the former selecting from at least *two* of the Departments A, B, and C, the latter from at least *two* of the Departments A, B, C, and D. One of the subjects must be chosen from Department A. The History and Geography papers are subject to special conditions, for which see *Regulations*. In Department E all the subjects must be taken before a Special Certificate is granted.

The Extra Subjects (optional) for both Certificates are Drawing and Music.

These Examinations have been instituted to supply a common test of attainment both for pupils of public schools and for those privately

educated. They are held annually, early in June, at various local centres in Scotland, England, and Ireland, and also abroad. There is no restriction as to age.

Candidates may offer themselves for Examination in the Preliminary Subjects alone, and afterwards for the Special and Extra Subjects of the Junior or Senior Certificate; or, they may take the Preliminary, Special, and Extra Subjects, for either Certificate, at one Examination. They may afterwards add to the value of the Certificate by taking two or more subjects. A number of Bursaries are offered in connection with these Examinations.

PRIVILEGES ATTACHING TO THE CERTIFICATES.

1. The Junior and Senior Certificates exempt from the Medical Preliminary Examinations, so far as the requirements of the General Medical Council are concerned, if all the subjects required by the Council are taken at one and the same examination.[1]

2. Girls who hold the Senior Certificate are exempted from the Entrance Examination for Girton College, Cambridge.

3. Holders of the Senior Certificate above eighteen years of age are recognised as Assistants in State-aided schools.

The Board publishes a Report of the Examinations annually, containing copies of the Examination papers, lists of the successful Candidates, and Regulations for the following year. Copies of the Regulations, &c., may be had on application to the Clerk of Senatus.

H. CALDERWOOD, LL.D., } *Joint*
S. S. LAURIE, LL.D., } *Secretaries.*
G. GREGORY SMITH, M.A., *Assistant Secretary.*

II.—CIVIL SERVICE OF INDIA EXAMINATIONS.

The University of Edinburgh now being one of those Institutions selected by the Secretary of State for India, in which Candidates for the Civil Service of India may pass their probation, arrangements have been made by the Senatus for the accommodation of selected candidates. Such selected candidates will be under the supervision of the Principal and Deans' Committee.

Persons desirous to be admitted as Candidates may obtain all necessary information from "The Secretary, Civil Service Commission, London, S.W.," who will supply forms of application at any time after the 1st December for the Examination following. The forms must be returned on or before 31st March.

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[1] The Certificates are not now accepted by the Scottish Universities. (See Regulations of Joint Board of Examiners.)

III.—EXAMINATIONS FOR CANDIDATES FOR THE ARMY.

In the Explanatory Memorandum of the Secretary for War, to accompany the Royal Warrant (of 30th October 1871) regulating first appointments, regimental promotion, &c., in the Army, it was announced that "A certain number of Sub-Lieutenancies a year will be allotted to Candidates who have passed the University Examination specified in the Regulations. If they also pass the Examination for the degree of B.A., they will be allowed two years' extension of the limit of age. University Candidates will be required to give at least six months' notice of their desire to be admitted into the Army. If in any year there should be more Candidates than appointments, the requisite number will be chosen by competition between the Candidates; after their appointment they will go through the same course as other Sub-Lieutenants."

In subsequent communications from the War Office it has been announced that "The Examination for M.A. at a Scottish University will be considered tantamount to passing that of B.A. at an English or Irish University;" and that "the Secretary of State for War has accepted an examination at the Scottish Universities, to be defined as 'The Examination for Candidates for the Army,' as equivalent to the examination at the English and Irish Universities for similar candidates, and that the age of such candidates may be extended to 21 years. This Examination will consist of one subject out of each of the three separate Departments marked (*a*) (*b*) (*c*) below."

In conformity with the above Regulations of the War Office—1st, All who have passed the Examination for the degree of M.A. will be eligible for Commissions in the Army, and will be allowed two years' extension of the ordinary limit of age. 2nd, Those Students who have not passed the M.A. Examination may receive Certificates qualifying them for Commissions in the Army (provided they be not more than 21 years of age) on having attended one class in each of the three Departments (*a*) (*b*) (*c*)—that is to say (*a*) either one Greek or one Latin class; (*b*) either Logic, Moral Philosophy, or Rhetoric and English Literature; (*c*) either Mathematics or Natural Philosophy,—and on passing the M.A. Examination, in either April or October, in those three subjects in which the Candidate has attended classes.[1] Candidates for the Certificate are not required to pass the Preliminary Examination, but unless the Candidate has passed the Preliminary Examination, the Certificate will not qualify for Graduation in Arts.

The names of intending Candidates for Certificates must be given in and Fees paid at the *Matriculation Office* at the same time as those of Candidates for the M.A. Examinations.

The Fee for the Examination is two guineas.

[1] See Regulations for Degree of M.A.

Candidates may be exempted from the Preliminary Examination in all subjects except geometrical drawing, if they can produce a certificate of having passed the Preliminary Examination in general education required of Candidates for graduation in Medicine at the University of Edinburgh, when the Candidate has passed in all the subjects of the Army Preliminary Examination at not more than two Examinations.

IV.—SYLLABUS OF SUBJECTS OF EXAMINATION FOR STUDENTS OF DIVINITY AND CANDIDATES FOR LICENCE BY PRESBYTERY OF EDINBURGH.

*** *The Examinations shall be conducted mainly in writing.*
An average of not less than 40 *per cent. over all the subjects, and a minimum of* 30 *per cent. in each shall be necessary to a pass, except in Biblical Knowledge, in which* 50 *per cent. shall be the minimum.*
The Examinations, by the favour of the Senatus, will be held in the Examination Hall of the University.

I.—FOR STUDENTS ENTERING THE DIVINITY HALL.

1. BIBLICAL KNOWLEDGE.—Genesis to 2 Samuel, and the Four Gospels.
2. THE SHORTER CATECHISM.

II.—FOR STUDENTS ENTERING UPON THEIR SECOND YEAR.

1. LATIN.—Augustine—Enchiridion.
2. GREEK.—The Epistle to the Colossians as in Lightfoot.
3. HEBREW.—Davidson's Grammar, 1-31; Genesis, i.-ix.
4. DIVINITY.—Confession of Faith, 1-15; Flint's Theism; Row's Manual of Christian Evidences.
5. BIBLICAL KNOWLEDGE.—1 Kings to Nehemiah, and Acts of the Apostles.
6. CHURCH HISTORY.—History of the Church to 325 A.D.

III.—FOR STUDENTS ENTERING UPON THEIR THIRD YEAR.

1. LATIN.—Anselm—Cur Deus Homo.
2. GREEK.—St John's Gospel to be read critically, with discussions as to date and authorship.
3. HEBREW.—Davidson's Grammar, 32-49; Psalms i.-xv.
4. DIVINITY.—Confession of Faith, 16-33; The Trinity; The Person of Christ.
5. BIBLICAL KNOWLEDGE.—The Mosaic Ritual and the Prophets.
6. CHURCH HISTORY.—The Reformation Period, with special reference to Scotland.

IV.—FOR CANDIDATES FOR LICENCE.

1. LATIN.—Augustine's Confessions, Book IX.
2. GREEK.—First Epistle of St John, to be read critically.
3. HEBREW.—The Psalms of Degrees.
4. DIVINITY.—Scripture Doctrine of the Atonement. By Professor Crawford.
5. PASTORAL THEOLOGY.—The Pastor as Preacher. By Dr H. W. Smith.
6. CHURCH LAW.—Mair's Digest, Chapters II. and IV.; "Matters affecting all the Courts;" and "The Kirk-Session."

N.B.—By Act of Assembly XX., 1889, all Students of Theology who have completed the prescribed course of Theological instruction shall, before applying to any Presbytery to be taken on trials for licence, be examined by the Synodical Committees already existing for examination of Students entering the Divinity Hall. The Convener of the Edinburgh Synodical Committee is the Rev. Dr Alison, who will give the necessary information.

V.—THE EDINBURGH UNIVERSITY UNION.

President—John A. Laing. *Hon. Secretary*—S. J. Aarons.
Treasurer—W. A. Wood, C.A., 45 Queen Street.

COMMITTEE OF MANAGEMENT—*Senatus*—Professors Annandale and Butcher. *General Council*—Dr J. G. Cattanach, Dr C. W. Cathcart, J. A. Clyde, LL.B.; Dr A. L. Turner. *Matriculated Students*—J. G. C. Scott, C. H. Adamson, A. M'C. Morrogh, J. W. Tullo, George Henderson, C. P. B. Wall.

The Union is open to all Students and Graduates of the University, and its purpose is "the provision and maintenance of means of social and academic intercourse for its members." The Building, which includes a large hall (in which the debates are held), luncheon, smoking, and reading-rooms, is situated in Park Street, near both the old and the new buildings. The reading-room is amply supplied with newspapers, and with the weekly, monthly, and quarterly periodicals; the smoking-room is furnished with two billiard tables, and the library contains University, Class, Text, and Reference Books.

Terms of Membership.—By payment of an entry-money of 5s. and an Annual Subscription of 10s. 6d. if a Matriculated Student, or £1, 1s. if a Graduate, University Assistant, or Lecturer.

AFFILIATED SOCIETIES.

The Edinburgh University Union Dramatic Society.
University of Edinburgh Union Literary Society.
E. U. Union English Public Schools Club.
The following University Societies and Associations, though not

affiliated with the Union, have been granted certain privileges for the transaction of Business in the Union:—Students' Representative Council, Athletic Club, Conservative Association, Liberal Association, Chemical Society, Musical Society, and Darwinian Society.

Full particulars as to affiliation, &c., on application at the Union.

VI.—STUDENTS' REPRESENTATIVE COUNCIL.

FOUNDED 1884.

The aims of the Council are—(1.) To represent the students in matters affecting their interests; (2.) To afford a recognized means of communication between the students and the University authorities; and (3.) To promote social life and academic unity among the students. The Council is elected annually in November, partly by the students of the different Faculties, and partly by the recognised students' societies. Meetings are held in November, December, January, February, March, May, June, July, and October. At the November meeting an executive committee is elected, consisting of three presidents, two secretaries and treasurers, and ten other members, representing the four Faculties.

Presidents—J. A. Laing; R. D. Melville, M.A.; G. Henderson, M.A. *Secretaries and Treasurers*—Will. J. Garbutt, The Union; D. Waterston, M.A., 16 Merchiston Terrace.

DIRECTORY OF STUDENTS' LODGINGS.

(Under the Management of the Students' Representative Council.)

This Directory (containing terms, references, and full particulars) lies open for inspection by Students in the Students' Common Room at the University New Buildings.

VII.—STATISTICS OF THE RECTORIAL ELECTIONS IN THE UNIVERSITY OF EDINBURGH, 1859-1893.

1859.—*Gladstone*, 642.—*Neaves*, 527. Matriculated students, 1302.
1862.—*Gladstone* (*unopposed*). Matriculated students, 1331.
1865.—*Carlyle*, 657.—*Disraeli*, 310. Matriculated students, 1288.
1868.—*Moncreiff*, 607.—*Ruskin*, 425. Matriculated students, 1398.
1871.—*Maxwell*, 594.—*R. Palmer*, 502. Matriculated students, 1533.
1874.—*Derby*, 770.—*Playfair*, 583. Matriculated students, 1767.
1877.—*Hartington*, 932.—*Cross*, 684. Matriculated students, 2102.
1880.—*Rosebery*, 1024.—*Christison*, 985. Matriculated students, 2496.
1883.—*Northcote*—*Blackie*—*Trevelyan*. Matriculated students, 2660.
1886.—*Iddesleigh*, 1094.—*Playfair*, 747. Matriculated students, 2680.
1887.—*Lothian* (*unopposed*). Matriculated students, 2493.
1890.—*Goschen*, 1378.—*Russell*, 805. Matriculated students, 3038.
1893.—*Robertson*, 1145.—*Reay*, 728. Matriculated students, 2649.

VIII.—ROYAL MEDICAL SOCIETY, EDINBURGH.

FOUNDED 1737. ROYAL CHARTER GRANTED 1778.

Presidents—R. Hutchison, M.B., C.M.; D. C. Bremner, M.B., C.M.; G. L. K. Pringle, M.B., C.M.; George Elder, M.B., C.M. *Secretaries*—John Orr, M.B., M.R.C.S., L.R.C.P.; J. P. Stewart, M.A. *Treasurer*—J. R. Young, Esq.

The Society meets in its hall every Friday evening during the Winter at 9 o'clock. At these meetings dissertations on medical subjects are read and debated, and communications by members on subjects of interest discussed. The Society possesses a very fine library, containing about 30,000 volumes, which is constantly being added to. There are comfortable writing and reading-rooms with all the medical journals and periodicals, books of reference and text-books specially useful to students reading for examinations. The museum contains a complete collection of Materia Medica specimens, microscopic sections, pathological preparations, herbarium, and a surgical model, on which bandaging, setting of fractures, &c., may be practised.

IX.—INTERNATIONAL-ACADEMIC COMMITTEE.

The Principal and Deans' Committee of the Senatus and the International Academic Committee of the Students' Representative Council are prepared to give all the assistance and information in their power to Foreigners desirous of studying in the University of Edinburgh, and to Edinburgh University Students desirous of studying in foreign universities. Inquiries may be addressed in writing to the Secretary of Senatus, or to the Convener International-Academic Committee, Students' Representative Council, University of Edinburgh.

X.—ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY OF EDINBURGH.

President—The Right Hon. Arthur James Balfour, D.C.L., LL.D., M.P., Chancellor of the University. *Vice-Presidents* — The Right Hon. The Earl of Wemyss, LL.D.; The Right Hon. The Earl of Stair, K.T.; The Right Hon. The Earl of Rosebery, LL.D.; The Right Hon. Lord Moncreiff, LL.D.; Sir James Gardiner Baird, Bart.; Principal Sir William Muir, K.C.S.I., D.C.L., LL.D.

Ordinary Members of the General Committee—The Right Hon. John B. Balfour, Q.C., LL.D., M.P.; Edmund Baxter, Esq., W.S.; Donald Beith, Esq., W.S.; R. Fitzroy Bell, Esq., Advocate; A. W. Black, Esq.; John Boyd, Esq.; Sir Thomas J. Boyd; Professor

Butcher, LL.D.; John Carment, Esq., LL.D., S.S.C.; Professor Chiene, F.R.C.S.E.; D. Christison, Esq., M.D.; John Christison, Esq., W.S.; The Hon. Lord Rutherfurd Clark, LL.D.; Sir Thomas Clark, Bart.; Archibald Constable, Esq.; Charles Cook, Esq., W.S.; Henry Cook, Esq., W.S.; R. Cameron Cowan, Esq., C.A.; Donald Crawford, Esq., M.P., Advocate; The Hon. Lord Stormonth Darling; John Duncan, Esq., M.D.; J. R. Findlay, Esq.; The Rev. Archibald Fleming; John Harrison, Esq.; James Hope, Esq., W.S.; The Hon. Lord Kinnear, LL.D.; Æ. J. G. Mackay, Esq., LL.D., Advocate, Sheriff of Fife; The Hon. Bouverie F. Primrose, C.B.; Charles Robertson, Esq., B.C.S.; Robert Simson, Esq., B.C.S.; George Smith, Esq., LL.D., C.I.E.; James Walker, Esq. of Dalry. *Hon. Secretary*—Sir Alexander Christison, Bart., M.D. *Acting Secretary*—Robert G. Scott, W.S., 61 North Castle Street.

Local Honorary Secretaries—A. Mercer Adam, Esq., M.D., Boston, Lincolnshire; Hugh Cleghorn, Esq., M.D., Stravithy, St Andrews; Sir Dyce Duckworth, M.D., 11 Grafton Street, Piccadilly, London; Peter Gardner, Esq., W.S., 153 St Vincent Street, Glasgow; A. F. Hutchison, Esq., Stirling; James Tait, Esq., W.S., Kelso.

Terms of Membership—Life Subscription, Ten Guineas; Annual Subscription, One Guinea. Subscriptions and Donations in excess of these Sums are earnestly solicited by the Committee.

XI.—UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME.

At a Meeting of the Acting Committee for this Scheme, held on 16th November 1885, it was resolved to apply to Parliament for power to acquire houses in Park Street adjoining the present New Buildings as a site upon which to erect a University Hall; and under the Edinburgh University Buildings Extension Act, 1886, the following Members of the Committee, viz.:

Principal Sir W. Muir, K.C.S.I., D.C.L.,
William M'Ewan, Esq., M.P.,
Professor Sir William Turner, D.C.L.,
John Christison, Esq., W.S.,

were incorporated as Trustees by the name of the Edinburgh University Buildings Extension Trustees, for the purpose of acquiring the property in question and erecting the Hall.

Mr M'Ewan munificently offered to contribute the sum required to erect the Hall as originally contemplated, and in completion of the architect's design, upon condition of the cost of the site being provided otherwise. The Government was approached on the subject, and a Parliamentary grant of £8000 towards the cost of the site was obtained. Mr M'Ewan having provided the balance required, the site was pur-

chased. Plans for the erection of the Hall by R. Rowand Anderson, LL.D., Architect, were approved of and contracts entered into, and the work is now being proceeded with. By resolution of the Senatus Academicus, the new Hall will be named the "M'Ewan Hall," in grateful recognition of the founder's benefaction.

GEORGE SOMERVILLE, City Chambers,
Clerk to Trustees.

XII.—UNIVERSITY SOCIETIES AND CLUBS.

i.—THE AGRICULTURAL SOCIETY.

ESTABLISHED 1858.

Honorary President—John Hunter, F.I.C., F.C.S. *President*—T. W. Cuthbert. *Vice-President*—J. Monteath. *Secretary*—H. W. Stone. *Treasurer*—D. M. Ross. *Committee*—Messrs Affleck, Milner, and Welch.

This Society meets weekly on Mondays during the Winter Session at 7.30 P.M.

ii.—ARTS STUDENTS' CHRISTIAN ASSOCIATION.

Hon. President—Professor Calderwood, LL.D. *President*—J. R. M'Lean. *Secretary*—O. L. K. Mudie, 129 Warrender Park Road. *Treasurer*—J. A. Glover.

iii.—ASSOCIATED SOCIETIES OF THE UNIVERSITY.

This Association was instituted in 1833, and is a Union of Literary and Debating Societies. It is composed at the present date of five societies:—The Dialectic, Scots Law, Diagnostic, Philomathic, and Celtic Societies. The following is the list of the Office-Bearers of the Association, and of the respective component societies:—

Honorary President—Professor David Masson, LL.D. *Hon. Vice-Presidents*—The Senatus Academicus of the University (*ex officiis*). *Secretary*—A. J. Louttit Laing, M.A., 59 Manor Place.

(1.) DIALECTIC SOCIETY.—INSTITUTED IN 1787.

Presidents—A. Rutherford Howell, M.A.; A. Kinnaird Tod, A. Elliot Keay, C. Lippe, D. Nichol Smith. *Secretary*—John A. Robson. *Treasurer*—C. C. Watson.

This Society meets in the Societies' Hall every Thursday Evening at 8 o'clock, for the prosecution of Literary and Philosophical Composition, Criticism, and Debate.

(2.) SCOTS LAW SOCIETY.—INSTITUTED IN 1815.

Presidents—James Begg, S.S.C., 6 North Charlotte Street; Arthur S. Orr, S.S.C., 34 Castle Street; R. C. Malcolm, M.A., LL.B., Advocate. *Secretary*—Robert Macdougald, B.L., Solicitor, 8 George Street. *Assistant-Secretary*—Mr A. N. Stephenson, 8 Belford Terrace. *Treasurer and Librarian*—John Clark, Solicitor, 6 George Street.

This Society meets every Monday Evening during the Winter Session, at 8.30 o'clock, for the purpose of debating and reading Essays.

(3.) DIAGNOSTIC SOCIETY.—INSTITUTED IN 1816.

Presidents—G. W. Currie, J. A. Graham Miller, Henry Tod, jun., A. Murray. *Secretary*—A. S. Fraser. *Treasurer*—H. J. Boyd.

This Society meets every Tuesday Evening during the Winter Session, at 9 o'clock, in the Associated Societies' Hall, for the purpose of debating and reading Essays.

(4.) PHILOMATHIC SOCIETY.—INSTITUTED IN 1858.

Presidents—J. N. Rae, J. H. Guild, and A. G. Fraser. *Secretary*—J. W. Hamilton Smith. *Assistant-Secretary*—G. C. Rankine. *Treasurer*—E. F. Gibson.

This Society meets in the Societies' Hall every Friday evening during the Winter Session, at 8 P.M., for the purposes of debating and reading Essays; and is open to all who are, or have been, Matriculated Students of the University of Edinburgh.

(5.) CELTIC SOCIETY.—INSTITUTED 1848.

Honorary President—Professor MacKinnon. *Presidents*—James Tolmie, M.A.; David Duncan; Malcolm MacInnes, M.A. *Secretary*—James D. MacDonald. *Assistant-Secretary*—T. S. MacPherson. *Treasurer*—J. N. Jack.

This Society meets in the Societies' Hall every Saturday evening during the Winter Session, at 7 P.M., for debating and reading Essays. Literary business conducted in Gaelic three nights in the Session.

iv.—ATHLETIC CLUB.

President—Dr J. H. A. Laing. *Treasurer*—C. E. W. Macpherson. *Secretary*—H. P. Elliot.

Open to all Members and Graduates of the University, and to Students of the Extra-Mural School. The *sections* of the Club are—

1. FOOTBALL (Rugby)—*Secretary*—H. T. Thacker. (Association)—*Secretary*—A. H. Hamilton. 2. CRICKET—*Secretary*—J. Lee. 3. CYCLING—*Secretary*—N. Maudesley. 4. LAWN TENNIS—*Secretary*— 5. SWIMMING—*Secretary*— 6. HARE AND HOUNDS—*Secretary*—J. G. Ross. 7. GOLF (affiliated)—*Secretary*—R. J. Bryce. 8. ROWING—*Secretary*—W. G. Currie.

Field at Corstorphine. Gymnasium at University Union. Address all communications to *Sec.*, University Union.

v.—BATTERY, EDINBURGH CITY ARTILLERY.

Captain—Professor J. C. Ewart. *Sergeant-Major*—H. O. Hobson. *Sergeants*—T. Kennedy, C. J. Caddick, T. D. Lamond, T. J. M. Keegan. *Secretary and Treasurer*—Sergeant Lamond, University Union.

The Battery is recruited from the University and the Extra-mural School only. During the summer numerous competitions are held: in the Battery, Carbine Shooting and a competition in drill and firing with field-guns by subdivisions for the Challenge Shield; in the Brigade, Carbine Shooting, Field-gun Shooting, and Repository Competitions; and, inter-regimentally, numerous prizes are offered by the Scottish National Artillery Association at Barry Camp for Shooting, Drill and Repository work with field-guns, including the Waveney Cup and the Queen's Prize.

Further information may be obtained from any of the above-named N.C.O's, or at Headquarters, 31 St James' Square.

vi.—CAITHNESS STUDENTS' ASSOCIATION.

INSTITUTED IN 1837.

Honorary President—His Grace the Duke of Portland. *President*—Alexander Doull. *Secretary*—David Reid. *Treasurer*—John B. Meiklejohn. *Joint Competition Committee*—A. Doull, J. Gregory Nicolson, George Murray.

This Association meets fortnightly, in the Education Class Room, on Saturdays, at 8 P.M., during the Winter Session, for the purpose of debating, for reading Essays, and for the advancement of education in the North of Scotland.

vii.—CHEMICAL SOCIETY.

INSTITUTED 1874.

President—Professor A. Crum Brown, M.D., D.Sc. *Vice-President*—Leonard Dobbin, Ph.D., F.R.S.E.; W. Peddie, D.Sc. *Librarian*—A. Forbes Watson, B.Sc. *Secretary*—J. W. Tullo. *Treasurer*—J. Nesbit.

This Society holds fortnightly meetings, at 8 P.M., in the Committee Room of University Union, during the Winter Session, for the reading and discussion of papers on Chemistry and allied Sciences.

Excursions to Chemical Works, &c., during the Summer Session.

viii.—DARWINIAN SOCIETY.

(*Names of Office-Bearers not communicated.*)

The Society meets every alternate Wednesday evening, at 8 P.M., in the Hall of the University Union, and is open to all who are, or have been, Matriculated Students of this University.

ix.—DUMFRIESSHIRE AND GALLOWAY LITERARY SOCIETY.

INSTITUTED 1847.

(*Names of Office-Bearers not communicated.*)

The Society meets every Saturday evening during the Winter Session, at 7 o'clock, in the Public Law Class-Room.

x.—FREE CHURCH SOCIETY.

INSTITUTED 1886.

Honorary President—Professor Andrew Seth, LL.D. *Presidents*—H. M'D. Ross, G. R. T. Ross. *Secretary*—Lennox Fraser. *Assistant Secretary*—J. G. Smith. *Treasurer*—A. J. Baird.

This Society meets every Saturday evening during the Winter Session, at 7 o'clock, in Dr Moxey's Class-Room, F.C. College, Mound, for the purpose of debating and reading Essays.

xi.—MEDICAL STUDENTS' CHRISTIAN ASSOCIATION.

Honorary President—Professor Crum Brown, M.D., D.Sc., LL.D. *Honorary Vice-Presidents*—Professors Sir D. Maclagan, M.D.; Grainger Stewart, M.D.; Greenfield, M.D.; Simpson, M.D.; Chiene, M.D.; Dr A. G. Miller; Mr C. W. Cathcart, F.R.C.S.; Dr A. H. F. Barbour, Dr Peel Ritchie, Dr J. W. Ballantyne. *President*—J. E. Bowes, 3 Livingstone Place. *General Secretaries*—B. L. Livingstone-Learmonth, 88 Polwarth Gardens; J. Rutter Williamson, 93 Warrender Park Road. *Ward Service Secretaries*—A. G. Fenn, 65 Warrender Park Road; E. de Carle Prout, 59 Marchmont Road. *Treasurer*—D. M. Mackay, 14 Panmure Place. *Ward Library Secretary*—N. Macvicar, 3 Oxford Street.

The object of the Association is, stated briefly, to form a bond of union between Medical Students whose *principles and aim in life* are Christian. All Medical Students approving of this object are invited to enrol as members. A half-hour meeting, open to *all* Medical Students, is held each Sunday during Session from 10 to 10.30 A.M. in the Chapel of Royal Infirmary, and is conducted by various medical men and Senior Students. The Secretaries will be glad to give full information as to the work of the Society.

xii.—MISSIONARY ASSOCIATION.—INSTITUTED 1825.

Honorary President—Principal Sir W. Muir, K.C.S.I., D.C.L. *Hon. Vice-Presidents*—Lord President Robertson (Lord Rector), Professors Calderwood, Charteris, and Dobie. *Chairman of Workers' Meeting*—Professor Dobie. *President*—D. G. Hamilton, M.A. *Vice-President*—Hugh P. Reid. *Secretary*—J. L. MacLean Watt, M.A.

Assistant Secretary—H. M. Lamont, M.A. *Treasurer*—W. Melville Sym, Esq., C.A. *Assistant Treasurer*—W. J. Pennel, M.A. *Librarian*—T. W. Wilson, M.A. *Vice-Librarian*—Walter Lamb, M.A.

The Association meets to transact business in the Public Law Class-Room on alternate Saturdays, at 10 A.M.

xiii.—MUSICAL SOCIETY.—Established 1867.

Patron—H.R.H. The Duke of Edinburgh.

President—Professor Niecks. *Vice-Presidents*—Principal Sir W. Muir, K.C.S.I.; Professors Annandale, Armstrong, Butcher, Calderwood, Crum Brown, Flint, Kirkpatrick, Maclagan, Rutherford, Seth, Emeritus-Professor Sir Herbert S. Oakeley; D. Hepburn, M.D.; and Macdonald Brown, M.B. *Hon. or Corresponding Vice-Presidents*—The President of Aberdeen University Musical Society; Prof. Sir Robert Stewart, Dublin, Prof. Sir John Stainer, Oxford, and Prof. Villiers Stamford, Cambridge. *Hon. Treasurer*—W. C. Sillar, M.B. *Hon. Secretary*—A. Douglas Thomson, M.A.

Weekly practice, during the Winter Session, in the Hall of the University Union. Day and hour subject to arrangement at the general meeting held at the beginning of the Winter Session.

xiv.—PHYSICAL SOCIETY.

Presidents—J. B. Clark, M.A.; R. Lees, Esq. *Secretary and Treasurer*—Alex. Shand, Physical Laboratory.

This Society meets every third Wednesday during the Session, at 7 P.M., for the discussion of subjects connected with Mathematical and Experimental Physics.

xv.—PHOTOGRAPHIC SOCIETY.

Honorary President—Professor A. Crum Brown. *President*—Dr Thomas Drinkwater. *Vice-President*—Dr Logan Turner. *Secretary and Treasurer*—Mr H. Overton Hobson, The Union.

All past and present Students eligible. Dark-rooms, Studio, &c., at 3 Bristo Place, free to Members at any time. Monthly meetings during sessions. Excursions in summer time.

xvi.—RIFLE COMPANY SHOOTING CLUB.

Instituted 1873.

Honorary President—Lieut.-Col. Sir Wm. Turner. *President*—Captain I. B. Balfour. *Vice-Presidents*—Lieutenants J. A. Hope and E. H. Robertson. *Secretary and Treasurer*—Sergeant Gavin Grey. *Committee* — Col.-Sergeant G. Wallace; Corporal J. A. Benson; Lance-Corporal C. W. Peach; Privates J. Bowie and De Vos.

This Club is open to members of No. 4 (University) Co., Q.R.V.B.R.S. The Club superintends the shooting of the Company. Weekly competitions are held at Hunter's Bog, and an Annual Prize Competition in July, at which numerous prizes are given. A silver teaspoon is given for each weekly competition.

xvii.—SHINTY CLUB.

Patrons—Lord Robertson, Lord Rector of the University; Lord Reay; The Honourable the Master of Blantyre; A. H. Stein, Esq., Kirkfield, Lanark; Lewis MacIver, Esq.; Rev. Dr Blair, of St John's, Edinburgh; Dr Macgregor, M.P., Inverness-shire. *President*—Emeritus-Professor Blackie. *Vice-President*—Professor MacKinnon. *Captain*—R. W. Meikle. *Vice-Captain*—J. M. Macdonald. *Hon. Secretary and Treasurer*—H. Dougal.

Membership is open to all past and present Students of the University. Practice at Inverleith Park on Saturday afternoons.

xviii.—THEOLOGICAL SOCIETY.—Instituted 1776.

Honorary President—Rev. Professor Flint, LL.D. *Honorary Vice-Presidents*—Rev. Professor Charteris, D.D.; Rev. Professor Taylor, D.D.; Rev. Professor Dobie, B.D. *Presidents*—W. J. Pennell, M.A.; William Smith, M.A.; L. C. D. Douglas, Robert Hall. *Secretary*—W. R. Henderson, M.A. *Treasurer*—H. M. Lamont, M.A.

This Society is open to present and past Students of any Theological Seminary. It meets every Friday evening during the Winter Session, at 8.30 P.M., for debates and discussions on questions of Theology, Church History, Biblical Criticism, General Ecclesiastical Polity, and kindred subjects.

xix.—UNIVERSITY HALL.

2 Mound Place and Riddle's Court (5 Victoria Terrace).

Founded May 1887.

University Hall is designed as a social residence for Students, Graduates, and others connected with the University. Begun in 1887 at Mound Place, it has since been extended to Riddle's Court, James Court, Hope Park Square, and now also to Ramsay Gardens and Ramsay Lodge. All these buildings are within short distances of the University, and include common rooms, private studies, and bed-rooms. The rents range from 7s. to 18s. per week, and the board from 12s. to 15s. per week, payable by term or weekly.

The external affairs of the Hall are in the hands of Professor Geddes, with the assistance of the following Consulting Committee:—Lord Stormonth-Darling; Professors Butcher, Chiene, Kirkpatrick, Crum Brown, Geddes; Æneas Mackay, Esq., LL.D.; R. Fitzroy Bell, Esq.;

W. K. Dickson, Esq.; Dr George Mackay, Dr Hunter Stewart, James Macdonald, Esq.; R. C. Gray, Esq., S.S.C.; J. F. Mackay, Esq., W.S.; Dr Caird, J. Arthur Thomson, Esq., M.A., and three representatives from those in residence. Riccardo Stephens, M.B. is Secretary of this Committee.

The internal arrangements of each house are, in most cases, managed by a committee of the residents elected monthly. When desired, young Students can be placed under the care of one of the resident tutors, the Rev. H. H. Flower, Pittodrie House, Ramsay Gardens, J. A. Thomson, Esq., M.A.; Riccardo Stephens, M.B., and others, and in some of the chambers and larger houses occupied by teachers, graduates, &c., Students can be received as pupils and boarders.

Application for rooms should be made at the different houses. Application for information with regard to general questions on University Hall can be made to Riccardo Stephens, M.B., Ramsay Lodge.

XX.—UNIV. U.P. STUDENTS' SOCIETY.—INSTITUTED 1843.

Honorary Presidents—Professor Crum Brown, M.D., LL.D.; Rev. Professor Henry Calderwood, LL.D.; Rev. John Hutchison, D.D.; Rev. A. B. Cameron, D.D. *President*—James B. Russell. *Vice-Presidents*—A. B. Macdonald, T. Lorimer Beveridge. *Secretary*—James G. Burns. *Treasurer*—J. K. Graham.

The Society meets every Saturday evening during the Winter Session, in the U.P. College Buildings, Castle Terrace, at Seven o'clock.

XXI.—WOMEN'S DEBATING SOCIETY.—INSTITUTED 1893.

President—Frances H. Melville. *Vice-President*—Annie C. Sutherland. *Secretary*—Katrina L. H. Millar, 5 Palmerston Place. *Treasurer*—Mary C. Dods.

The Society meets every Friday during the Winter Session, at 5 P.M., within the University, for Debate and Literary Criticism.

XIII.—COMMISSIONERS' ORDINANCE UNDER UNIVERSITIES (SCOTLAND) ACT, 1889, No. 44 [GENERAL No. 16.—REGULATIONS FOR DEGREES IN ARTS, SUPPLEMENTARY TO ORDINANCE No. 11], WHICH COME INTO FORCE ON 1ST OCTOBER 1894.

At Edinburgh, the 13th day of December 1893 years.

WHEREAS on the 3rd day of February 1892 years, the Commissioners under the Universities (Scotland) Act, 1889, issued an Ordinance No. 11, General No. 6, regulating the course of study for graduation in Arts; and whereas it is expedient that the said Ordinance should be

amended and explained as hereinafter provided, the Commissioners under the said Act declare and ordain as follows:—

I. In Section I., Sub-section 2, of the said recited Ordinance, the words "in May" shall be deemed to be deleted.

II. In Section III., Sub-section 1, of the said recited Ordinance, after the word "curriculum" shall be inserted the words "(subject to the proviso contained in Section IV., Sub-section 1)."

III. Sub-section 9 of Section III. of the said recited Ordinance shall be altered to read as follows:—"A candidate shall be obliged to pass in all the required subjects at one or not more than two examinations, provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition."

IV. At the end of Sub-section 1 of Section IV. of the said recited Ordinance shall be added the words—"Any student who has passed in Latin, Greek, or Mathematics on the higher standard may attend a qualifying class in such subject or subjects without having passed in the other subjects of the examination, provided always that (*a*) no candidate shall be allowed to present himself for examination in any subject qualifying for graduation until he has passed the whole Preliminary Examination, and (*b*) no student shall be admitted to a degree in Arts unless he has attended qualifying classes in the University granting the degree, or in another Scottish University, as provided by Section XXV. hereof, for three Academic years after he has completed his Preliminary Examination."

V. After Section IV., Sub-section 3, of the said recited Ordinance shall be inserted the following Sub-sections:—

"(4) Attendance on a class of Mathematics or Natural Philosophy shall not qualify for graduation unless the candidate, before entering the class—in addition to the examination in Mathematics on the Lower Standard required of all students—has passed an examination in the following subjects:—

"(*a*) Euclid: Book VI., Propositions 1-19, or Geometry equivalent thereto.

"(*b*) Algebra: Quadratic Equations, Ratio and Proportion.

"(*c*) The Trigonometry of Right-angled Triangles.

"(5) A student, who, having passed the Arts Preliminary Examination in accordance with the provisions of this Ordinance, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, shall not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science under the provisions of Ordinance No. 12 [General No. 7—Regulations for Degrees in Science]."

VI. The expression "Modern Language" in Section VII., Sub-section 2, and Section XI., Sub-section 1 (*g*), of the said recited Ordinance, shall mean French, German, Italian, or Spanish.

VII. Modern Greek shall be included in the subjects recognised for graduation under the provisions of Section IX. (1. Language and

Literature), of the said recited Ordinance, but shall not be held to be a substitute for Greek as prescribed under the provisions of Sections VII., Sub-sections 2 and 3 thereof.

VIII. The Senatus Academicus, in determining the courses to be attended within the Honours Group entitled "English (Language, Literature, and British History)," and the character of the examination specified in Section XI., Sub-section 1 (*f*), of the said recited Ordinance, shall regard English Literature as constituting the chief subject of the Group, the linguistic and historical subjects being regarded as subsidiary thereto.

IX. In addition to the syllabus of subjects specified in Section XVIII. of the said recited Ordinance, the Professors, and, in the case where a subject is taught by a Lecturer only, the Lecturer or Lecturers shall submit to the proper Board of Studies a syllabus of the subjects and books to be prescribed for the examinations for the Ordinary Degree of Master of Arts in the next academical year, and for the Honours examinations in the academical year next but one.

X. Section XXI. of the said recited Ordinance shall be altered to read as follows:—"In the case of a foreign student, whose native language is other than English, the standard required in English in the Preliminary Examination shall be such as the Joint Board of Examiners may deem sufficient. In the case of a student, whose native language is other than European, the Senatus may accept as an alternative to Latin or Greek any other classical language, such as Sanskrit or Arabic, subject always to the provisions of Section IV., Sub-section 3, hereof."

XI. Attendance on classes in the Faculty of Arts in which the teaching is on the standard at present recognised for the classes hitherto known as junior or middle classes, shall in no case qualify for graduation.

XII. This Ordinance shall come into force at the beginning of the first academical year after the date on which it is approved by Her Majesty in Council; provided that Sections III. and IV. hereof shall be held to have come into force on the first day of October 1892.

In witness whereof these presents are sealed with the seal of the Commission.

A. S. KINNEAR,
Chairman.

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